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CHOLECYSTOTOMY, WITH A REPORT OF A SUCCESSFUL CASE.

By J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal.

Read before the San Francisco Medical Benevolent Society.

The operation of cholecystotomy consists in opening the gall-bladder through an abdominal incision, and in the majority of cases is performed for the removal of gall-stones, or for the relief of conditions arising from their presence.

This operation, according to Thudicum, was first performed in 1618 by Johannes Fabricius, who is said to have removed gall-stones from the gall-bladder of a living subject. The first important paper that appeared on the subject of surgery of the gall-bladder was by Petit, in 1743, in which he discusses the diagnosis of tumors of the gall-bladder and the sequences of biliary retention, and describes the operations of puncture and incision of that viscus for the removal of calculi. Since the time of Petit up to within the last decade, little or no progress seems to have been made in this field, surgeons for the most part decrying all operations on the gall-bladder.

Thudicum, in 1859, recommended abdominal section, suturing the unopened gall-bladder to the abdominal wound, and opening after several days. The modern operation of cholecystotomy was first performed by an American surgeon, Dr. Bobbs, of Indianapolis, in 1867. He incised the gall-bladder, removed some fifty small calculi, and closed the incision with one suture. His patient recovered. Dr. Marion Sims followed with an operation, which, though unsuccessful, had a most important influence in advancing the surgery of the gall-bladder. At the present time, Tait holds the leading place in this department of surgery, having published a series of some twenty cases—all successful.

The indications for the operation of cholecystotomy, as given by Grieg Smith, are as follows: In every case of wound or perforation of the gall-bladder, operation ought to be performed. In every case of empyema, operation is indicated. Aspiration is only temporary, and is by no means free from danger. In every case of dropsy of the gall-bladder, operation is indicated. Aspiration may do no harm, and it may detect the presence of stone, but is useless toward the removal of stone, and generally it has no beneficial effect on the disease.

In cholelithiasis the indications to operate must be guided by the effects produced by the disease. The presence of gall-stones does not justify an operation, unless they are produceing serious discomfort or danger. The dangerous sequences of gall-stones are frequently recurring attacks of hepatic colic, which wear out the patient's strength, jaundice proceeding to dangerous cholemia, and suppuration in the gall-bladder. The indication in each case is strengthened by an enlarged gall-bladder.

The following case was operated upon at the German Hospital:

K. E——, age 28, German, admitted to the hospital Jan. 24, 1891; patient had been ailing for over a year, and had suffered from repeated attacks of hepatic colic and vomiting. At the time of admission she appeared very much emaciated and jaundiced, the whole body being of a deep yellow color. She complained of pain in the epigastric and right hypochondriac regions. Examination revealed an enlarged gall-bladder, distended with calculi. On the 31st of January cholecystotomy was performed. A vertical incision was made over the fundus of the gall-bladder, the skin and muscles were divided in the ordinary way, the peritoneum opened, and the viscus brought into view. The abdominal wound was then closed, suturing the walls of the gall-bladder to the abdominal parietes, leaving a small portion of the fundus protruding through the centre of the abdominal incision. The protruding portion was then incised to an extent sufficient to admit the forefinger, sponges being placed to absorb any fluid that escaped. Through the opening thus made, 35 calculi of various sizes were removed. The bladder was then thoroughly irrigated and a rubber drainage-tube introduced and left protruding through the fistulous opening. Since the operation 48 additional calculi have passed through the fistula. In all, 90 calculi have been removed. The patient for the first few days suffered severely at times from vomiting, for which bismuth, soda and hydrocyanic acid were administered with marked benefit. Nourishing enemata were also resorted to. The temperature never rose above 101.3° F.

At the present time the patient is up and about, the appetite and digestion are good, the jaundice has entirely disappeared. The fistula will shortly be closed up and the patient discharged.

200 Stockton street.

THE DUAL DUTIES AND OBLIGATIONS OF THE MEDICAL EXAMINER IN LIFE INSURANCE.

By W. R. CLUNESS, M. A., M. D., Sacramento, Cal., Medical Director
Pacific Mutual Life Insurance Company.

Read before the Sacramento Society for Medical Improvement.

It is not my purpose to present an exhaustive paper upon the important subject selected for your consideration this evening, but rather to offer a few observations written *currente calamo*, regarding the more prominent points daily occurring in connection with this special department of our calling. And let me say that I intentionally use the word *special*, for although the duties incumbent upon the medical examiner in life insurance imply a fair knowledge at least of those appertaining to the general practitioner, they also imply a knowledge of the thousand and one factors that hinge upon the present personal condition and family history of the applicant for insurance, in so far as they concern his life expectancy. Nay, more; while the general practitioner may be skilled in diagnosing the present condition of his patient, and in applying the most rational hygienic means and best known therapeutic remedies for the alleviation and cure of the various ills of mankind, at all ages; the medical examiner in life insurance must take into consideration the effects of past illness, the innate powers of the system to successfully withstand probable attacks of other diseases, and the tendency to still other affections, to which so large a percentage of the human family are hereditarily predisposed. It will thus be seen that the professional requirements of the medical examiner in life insurance embrace a far wider range of inquiry and medical knowledge than any of the subdivisions to which so many medical men nowadays devote special attention, and that in point of fact all specialties are embraced within his important duties. The attainments of the medical examiner in life insurance should be of the highest order, and their conscientious discharge should be regarded as amongst his most sacred duties and obligations.

The dual duties and obligations implied in the title of the paper, it will be readily understood, refer to those due the company represented, and to those due the applicant for insurance. It will be observed that those due the company are first mentioned for the following reasons: first, because the physician in question has accepted the obligations imposed upon him by the company as their medical examiner, without other qualifications than conformity with the code of ethics, and the discharge of his duties with due consideration for the best interests of his employers; second, because, as an employe of the company, by whom alone he is to be remunerated for his services (and it should be remembered that his compensation is invariably paid), his employers are entitled to whatever information may be elicited during the examination, whether it be prejudicial or otherwise to the applicant.

What, then, are the duties and obligations of the medical examiner to the company he represents? Let me premise by reminding you that the theory of life insurance being predicated upon the selection of sound lives, and those that will probably reach their period of life expectancy, it follows that when those that are unsound and that will likely die prematurely are accepted, and policies are issued thereon, the company accepting such risks must sooner or later fail to meet its obligations, and pay the penalty by forfeiture of its charter. The loss in such cases, fortunately, does not fall upon the insured, for the directors and stockholders of the company in their individual capacity, so far as the laws governing such organizations in California are concerned, are held responsible for any deficit resulting from mismanagement of the business, in the proportion that the number of shares owned by each member, at the time of the shortage, bears to the whole number of shares of stock in the company.

While, however, this wise provision of our State laws materially obviates the hardships thus entailed upon the thousands of industrious heads of families whose lives had been insured, much inconvenience and loss would necessarily result to all concerned. It should nevertheless be borne in mind that whereas the failures in ordinary commercial pursuits amount to over 90 per cent. of all the capital invested, those of life insurance companies are represented by less than 1 per cent. What evidence could be adduced that would more clearly demonstrate the great care adopted by State governments in surrounding such organizations with wise and restrictive legislation, or that could illustrate the appreciation of the sacredness of the trust reposed in those charged therewith?

In referring to a few of the more important duties and obligations daily arising in connection with ordinary examinations for insurance, I shall premise by saying that the first important duty of the medical examiner is to carefully scrutinize the signature of the applicant as written in the application laid before him by the agent. He should then request the applicant to sign his name in the space for that purpose in the "report blank," and should compare it with that alaredy mentioned. At first thought this may appear to be wholly unnecessary; but when it is learned that designing and unscrupulous agents have been known to present for examination entirely different persons from those to whom the policy of insurance was to be delivered, the importance of this precaution will become apparent. This substitution of healthy persons for examination for those that are sickly, has seldom been carried out to its final issue, yet it has been sufficiently often attempted, and is so easily obviated in the manner indicated that it should always be considered at the outset. The medical examiner should therefore see that the applicant attach his signature to the medical report in his presence, and never before it reaches him or after it leaves his possession.

The next most important interrogatory, preliminary to the physical examination, is whether or not the applicant has ever been rejected by any other company; and if so, why and when? For notwithstanding the fact that each examination should be made with the greatest care and precision of which the examiner is capable, and even more thoroughly than the money-lender is wont to examine the title to a piece of property upon which a loan is desired, the examiner would thus be put on his guard by the knowledge of a previous rejection, and his dual obligations be more intelligently and justly performed. Here it may be in order to remind you that although it is claimed the first duty of the medical examiner is to his company, yet immediately following it and intimately associated therewith are his obligations to the applicant for insurance, be he patron or stranger. Obviously no prejudice should attach to the mere statement of his rejection, for upon careful investigation it may turn out that in reality there was no rejection. but merely a postponement to afford an opportunity for definite information regarding certain obscure points in the application, or on account of convalescence from a recent attack of illness, as typhoid fever, pneumonia or other acute disease, or recent injury, the prejudicial effects of which may not have wholly disappeared. It may be that the occupation, the environment or the location as to climate at the time insurance had been solicited may have been dangerous to the health of the applicant, and now having changed both his residence and his vocation these objections may no longer be present. It may be, also, that functional derangement of the heart, consequent upon faulty digestion, mental worry or other temporary cause may have induced postponement, or even rejection; but now the cause having been removed the applicant may be a first-class risk.

In such cases it is well known that the best diagnosticians have sometimes, especially if the examination be hastily made, mistaken a functional derangement for an organic lesion. Or, as has occurred to myself on more than one occasion, even with persons of my acquaintance, the ordeal to which an applicant of nervous temperament and retiring disposition imagines himself about to be subjected, so accelerates the heart's action as to insure his rejection, provided an accurate record of the state of the circulatory system be then made. For these and many additional reasons that will readily suggest themselves to the intelligent medical examiner, he should ascertain definitely at the outset, and as a preliminary to the examination proper, whether or not any of the regular life companies have ever refused to issue a policy of insurance upon the life of the applicant. Under such circumstances the dual duties and obligations of the conscientious examiner are often sorely tried, for an applicant having been once rejected by any of the large and successful companies is sure to find it exceedingly difficult to secure insurance in any other company, however honest and competent the examiner may be, and however desirable the risk. An amount of prejudice is certain to enter into the consideration of the question, which it is often impossible to overcome. As between the conflicting claims of the company and the applicant, however, he must give the former the benefit of the doubt. Under all circumstances he must protect it from harm to the best of his ability, yet he must not forget that the company wishes to secure every desirable risk that may be presented for his examination.

He must also recollect that the applicant has claims which should not be lightly considered, and that he possesses the right to demand that exact justice shall be meted out to him. He is honestly desiring to make provision, through a humanitarian scheme inaugurated for that purpose, for those dependent upon him in case of his premature death, and his efforts should not be unjustly thwarted.

Herein medical skill of the highest order is often demanded; tact also, which is often better than skill, will serve a good purpose, and all should cultivate it. When, therefore, it becomes necessary that postponement, or the severer ultimatum of rejection be enforced, the medical examiner should exercise his best judgment and tact lest both applicant and company suffer loss by a too hasty and ill-considered decision.

It should, perhaps, have been previously stated that for obvious reasons all examinations ought to be made in private, especially to avoid the meddlesome interference of agents, who are, of course, more interested in the commissons on the premium than upon the quality of the risk. In justice to the life insurance agent of to-day it can, however, be truthfully said that he is far more honorable and less likely to wilfully endeavor to saddle his company with an undesirable risk than was his predecessor of a few years ago; and he is generally quite as reliable as could be expected from the circumstances and the peculiar nature of his calling. Yet, even now, it is not unusual for him to endeavor to prejudice the mind of the examiner in advance in favor of the risk, especially if the family history indicate the presence of consumption, or the habits of the applicant as to the use of alcoholic liquors be questionable. Right here I desire to remind you, and to emphasize the statement that, to the two causes just mentioned more unnecessary loss is attributable in life insurance associations, both directly and indirectly, than to any other dozen causes combined. When an agent manifests undue solicitude, and emphasizes special defects in the personal or family history of an applicant, extraordinary care should be exercised, lest undesirable risks be placed in the company. You need scarcely be told, however, that under such circumstances the agent is far more likely to prejudice the case in the estimation of an independent and competent examiner, than he is to secure favorable recommendation without challenge. At any rate, the undue anxiety manifested should induce the most rigid scrutiny, for it will sometimes be found that valuable information will be thereby elicited which might otherwise be allowed to pass unobserved. The illustration of Dr. Palmer, of Louisville, is in point, when he tells of the agent who earnestly suggested to the examiner that the rupture which the applicant acknowledged having was "very small, indeed," little dreaming that the smaller the rupture the greater the danger.

The next general duty of the medical examiner, to which I shall refer, is the careful examination of all the organs of the system in accordance with the various interrogatories in the printed blanks submitted by the agent. To assist in this inquiry, comparative tables are either made a part of the blanks, or are furnished separately by the company for the convenience of the examiner. It should not be expected, however, that each applicant shall conform strictly to the proportions in the tables, or present the symmetry and physical perfection of an Apollo: but it should be borne in mind that the word "comparative" is used to indicate that the combined experience of life companies has demonstrated the proportions in the tables to be the average development and longevity of the human family, and that, *cæteris paribus*, those approximating this standard are the most likely to reach their expectancy. All companies allow a variation from the standard—usually 20 per cent.—and not infrequently when the variation is clearly due to hereditary influence, and the progenitors manifest a decided tendency to outlive, or even to reach, the applicant's life expectancy, a considerably greater variation is allowed. Doubtless each of you can readily recall instances of this kind, in which the variation in one family may be manifested by a marked adipose development, while in another the opposite condition may obtain, and yet in both instances the applicants may be desirable risks. In all such cases the family history should clearly manifest a tendency to reach old age, for it is well known that as a rule abnormally fat people tend to degenerations of the various organs, especially the heart and liver, while lean people are less able to resist certain acute affections.

It is also imperatively the duty of the medical examiner to make such inquiries regarding the personal history and daily routine habits of the applicant as will enable him to satisfy himself that they are good, and that he is not addicted to any practices which tend to shorten life. Herein, in these days of fast living, lies one of the most important factors in the whole problem of life insurance. The medical examiner should also observe carefully whether or not the applicant appears to be older than is stated in his application, and if the progenitors have manifested a tendency to reach his expectancy or the reverse. The importance of this inquiry, and the deductions hinging thereon, will readily occur to you without amplification. When deaths in the family are attributed to "cold," "fever," "exposure," "change of life," "old age," "dropsy," "childbirth," etc., the specific form of the disease causing death should be diligently sought out and recorded, for I am sure you need not be reminded that neither of these is a recognized cause of death, however much the nomenclature of some diagnosticians may defy the established laws of medical authorities. Childbirth, for example, is not a disease, yet all know that women sometimes die during parturition; but the process of labor is neither a disease nor the cause of death. This process, however, even in these days of antiseptics and asepsis, is sometimes followed by septicemia, puerperal peritonitis, or other intercurrent form of disease which terminates life, and this specific cause it is the duty of the examiner to ferret out and record as faithfully as possible. Neither can change of life nor cold be considered causes of death, although either may, and often does, act as an exciting cause for the development of some specific form of disease or structural lesion which not infrequently terminates fatally.

Above and beyond all of these, my experience in and connection with life insurance have convinced me that it is especially the duty of the medical examiner to ascertain as definitely as practicable what are the personal habits of the applicant with reference to the use of alcoholic stimulants. In this connection I may remind you that it has become customary for several companies during the past few years to draw the line at Anstie's limit of a daily allowance equivalent to one and one-half ounces of absolute alcohol. Candidly, however, I confess to a well-grounded conviction, based upon a somewhat extended observation, that an applicant who daily consumes this amount of alcohol, as represented by three ounces of ardent spirits, two wineglassfuls of sherry or other strong wines, a pint of claret, champagne or other form of light wine, three glasses of strong ale or porter, or four or five tumblerfuls of light ale or beer, is a very dangerous risk, and must almost necessarily succumb prematurely to disease of the liver, kidneys, stomach, or brain and nervous system. Another consideration not less important, especially with those who have not reached middle life, is the danger that the allowance of alcohol will be gradually increased. This is the usual sequence with all the "drugs which enslave."

I would also impress upon you the importance of inquiring into the family history of the applicant with reference to alcoholic indulgence, for intemperance is not less a neurosis than insanity. It is, therefore, the duty of the medical examiner to guard well the interests of his company against the baneful influences of alcoholic beverages, for there is no adverse factor in the whole category that, directly and indirectly, causes so many deaths. The several organs of the system upon which alcohol is known to manifest its injurious effects should therefore be critically examined whenever an applicant for insurance admits that he indulges, even in the most moderate quantities.

It has not been my purpose to indicate just how examinations should be made of the respiratory organs, the heart, the liver, kidneys, brain and nervous system, or, indeed, of any organ or portion of the system, but rather to point out in a general way a few of the more important duties of the medical examiner in life insurance, and especially to impress upon you the necessity of taking into account everything in connection with the present condition and personal and family history that is likely to influence the life expectancy of the applicant.

A point that suggests itself for the consideration of those interested in life insurance is, whether and how far, the theory of the contagiousness of pulmonary consumption may modify our previous notions of its heredity. At present I can do no more than raise the question, and express the hope that it may be fully discussed at no distant day.

In conclusion, I would observe that heredity has ever been recognized as a factor to be taken into consideration in estimating life expectancy; but I believe that hitherto its importance has not been fully appreciated. This is eminently true in both physiological and pathological traits connected with the nervous system, and I am convinced that we should be particularly careful to note concurrence of neurotic affections in several near relatives of an applicant.

1029 Second street.

THE RADICAL CURE OF HERNIA, WITH A REPORT OF FIVE CASES.

By Thos. W. Huntington, B. A., M. D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal.

Read before the Sacramento Society for Medical Improvement.

So much has been written upon the subject of radical cure of hernia during the past few years, it will be of interest to the Society to see the immediate result procured by one of the numerous methods now in vogue. I shall also briefly report the history of four cases in which the more simple operation of excising the sac and suturing the ring was performed.

This case [patient exhibited] was operated upon by the plan known as Macewen's, with a slight modification. This, briefly described, is as follows: The pillars of the ring are uncovered by a careful dissection. The sac is then separated from the cord and its accompanying vessels. This done, a curved needle, perforated at the joint, is armed with catgut. The end of the catgut is attached to the distal end of the sac. The sac is then folded upon itself and crowded by the left index finger far up into or through the internal ring. The needle is then passed along the left index finger and made to perforate the abdominal muscles, emerging at at a point one inch above the upper margin of the external ring. The skin is drawn upward from the wound so as to escape perforation. The needle is then freed from the catgut and withdrawn. The free end of the catgut is attached firmly to the abdominal muscles so as to hold the sac well up, and out of the external ring, and cut short. The pillars of the inguinal canal are closed by passing a curved needle, armed with strong aseptic silk, first from without inward, entering the conjoined tendon at a point near the lower angle of the canal; then from within outward, emerging near the upper margin of the canal. The needle is next carried across the canal and made to perforate Poupart's ligament from within outwards, and the needle is removed. It is next armed with the other end of the silk and again made to perforate Poupart's ligament from within outward at a point opposite the first puncture of the conjoined tendon. The needle being again removed, the two free ends of the silk are submitted to firm traction in order to close the canal, and are then tied. The ends are cut short and the suture buried as the integument is closed in the ordinary manner. The following is a brief report of the case in point:

Case I.—A. O——, laborer, æt. 40; for several years has suffered from double inguinal hernia. Formerly both lesions have been retained by an ordinary truss, but for the past year much difficulty has been experienced in controlling the gut in the left canal. Various trusses were tried, but the ring had become so enlarged that it was found impossible to adjust any truss satisfactorily. I finally suggested the propriety of an operation, and Dr. Cluness having concurred in the advisability of the step, the patient submitted. The operation was done, after ample preliminary preparation, on February 14, 1891. The Macewen method was modified, in that the sac, after being carefully freed from its attachments, was ligated and cut off, instead of being fastened by its fundus to the abdominal wall within or above the internal ring. A full antiseptic dressing was applied, which remained in place 6 days. On its removal, it was found that primary union of the external wound was complete. The case was declared cured on March 4th, or 16 days from the operation.

Case II.—J. J. B——, brakeman, æt. 29, has had right inguinal hernia since boyhood, and has worn trusses most of the time. May 8, 1886, hernia descended and became incarcerated, all efforts at reduction failing; no evidence of strangulation; came to hospital May 14, 1886, and further efforts at reduction by taxis failing, herniotomy was performed. The hernial mass consisted wholly of omentum, which was replaced. The sac was ligated and removed; the ring closed by two catgut sutures, and the skin wound with silver wire. The case progressed favorably, but a fortnight after operation an abscess formed in the line of the cicatrix, which continued to discharge for some time, patient finally making an excellent recovery.

Case III.—E. P. M——, æt. 22, fireman, inguinal hernia since boyhood, which became incarcerated June 19, 1889. Patient entered the hospital the following day, presenting evidence of strangulation. Herniotomy was at once performed, the pillars being approximated by catgut sutures. Case went on to perfect recovery, and was discharged at the end of one month.

Case IV.—G. L——, æt. 36, laborer, June 24, 1890, sustained a severe strain resulting in an omental hernia. He came to the hospital at once, and efforts at reduction by taxis failing, herniotomy was performed. The lesion was to me an unique one. The hernial mass had passed along the inguinal canal until it reached the external ring, where it deflected and passed beneath Poupart's ligament; pressure from this ligament being the main obstruction to reduction. The omental tumor was reduced, the sac ligated and removed, and the operation completed as in the last case. Patient made a rapid recovery and was discharged cured at the end of three weeks.

Case V.—W. B. M——, æt. 24, inguinal hernia since boyhood, which has become uncontrollable by a truss. On April 7, 1891, he came to the hospital and requested that an operation for radical cure for hernia be done. Careful dissection was made, the sac ligated and removed, the pillars of the ring approximated with three silk sutures and the skin wound closed as usual. Recovery was rapid and uninterrupted, he being discharged well at the end of one month.

The limited experience comprised in the foregoing cases that I have had in this department of surgery detracts from the value of any statement I may make either for or against the radical cure of hernia.

As to the value of the operation in general as an accredited surgical procedure, I cannot do better than quote from a paper read before the American Medical Association in 1890, by Dr. W. T. Bull, of New York. After recounting something over one hundred cases of attempted radical cure by various methods, the author frankly says: "In reflecting on the experience of these cases, I am obliged to conclude that in these methods, which I have faithfully tried, there is no prospect of attaining a radical cure of any form of hernia; and that the majority of cases will be found to relapse, if followed for a sufficient time. I am convinced, however, that the attempt to cure is desirable, since the majority of patients are in better condition than before."

Dr. McBurney, on the other hand, expressed to me personally the most unbounded confidence in the operation devised by himself. It is somewhat remarkable that two accomplished and equally skilful surgeons, living and operating for many years in the same locality, should express opinions so much at variance.

Final determination of the point at issue must evidently be deferred for many years, or until some impartial observer has followed a generation of operated patients to their graves. Meanwhile we may content ourselves in the position held by Mr. Banks, who maintains that the term "radical cure" is misleading, in that the patient who depends upon any of the "radical cure" operations for absolution from the necessity for a truss, will, as a rule, meet with disappointment. Mr. Banks insists that the instances in which a light truss can be dispensed with are proportionately few.

428½ J street.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By Wallace A. Briggs, M. D., Sacramento, Cal. and

Henry Gibbons, Jr., M. D., Professor of Obstetrics and Diseases of Women, Cooper Medical College, San Francisco, Cal.

Secondary Metrorrhagia.—Besides the hemorrhages typical in recurrence and duration, says Czempin, the female genital organs are often the seat of atypical hemorrhages. Although symptomatic, they nevertheless require direct intervention. Vulvar and vaginal hemorrhages may be ignored; they present no difficulties of diagnosis. Attention, therefore, will be restricted to hemorrhages from the mucous membrane of the uterus. These may be due to pathological conditions, divisible into two categories: (1) Immediate causes—*i. e.* those existing in the mucous membrane itself. (2) Remote causes—*i. e.* those residing in the annexæ. These may be called secondary hemorrhages, and, having no typical course or history, are often unrecognized. Inflammation and tumors of the annexæ are important causes. Acute inflammation rarely provokes serious hemorrhage; subacute inflammation developing in the course of chronic affections, or awakening ancient and latent lesions, often does so, however. Tumors of the annexæ, in their normal development, seldom give rise to hemorrhage, but often do so when engrafted on other lesions or followed by them. These secondary hemorrhages are not infrequent. Among 500 gynecological cases treated at the Polyclinic, there were 22 of secondary uterine hemorrhage. In the treatment curetting has no *raison d'etre*, for the uterine mucosa is not diseased; on the contrary, curetting often aggravates the bleeding. The vaginal tampon of iodoform gauze, associated with direct treatment of the causal affection, has seemed to Czempin most efficient. In disturbances of menstruation, extract of hydrastis canadensis proves useful. Brose agrees in the main with Czempin, that treatment is best which addresses itself directly to the cause; but this is not always practicable—then we must address ourselves to the symptom. Prolonged experience has taught me that here the galvanic current, with the anode in the uterus, is most successful. One condition, however, is essential—the absence of all evidence of inflammation, and especially of suppuration.—*Médicine Moderne*, March 19, 1891.

Ichthyol in the Treatment of Diseases of Women.—DRS. REITMANN and SCHOENAUER have treated with ichthyol 100 cases of pelvic peritonitis, parametritis, salpingitis, öphoritis, periöphoritis and retrouterine exudates. They emphasize the striking analgesic and resolvent powers of this remedy. In 34 of the 100 cases they observed complete cure; in 39, marked improvement; in 15, slight improvement, and in only 12 no result whatever. As a vaginal tampon, they employed a 10 per cent. solution in glycerine.—*Wein. klin. Wochenschrift.*

FREUND employs ichthyol, and with the best results, in the treatment of both cervical and corporal endometritis. Having used the vaginal tampon of ichthyol-glycerine until the cervical swelling is reduced, he then brushes the inflamed mucosa well with pure ichthyol-ammonium or sodium and orders daily irrigations of the vagina with warm water. It is rarely necessary to continue the application of the pure remedy for more than a week. In this time the discharge and swelling are so reduced that complete cure rapidly follows the use of astringent injections. Cure is promoted by the internal administration of ichthyol pills. FREUND also recommends the use of ichthyol-zinc in the treatment of ulcerated nipples, applying it pure, after thorough cleansing of the ulcerated surface. The results are brilliant, the pain ceasing and the nipples always healing within two to five days.—*Berliner klin. Wochenschrift—Schmidt's Jahrbuecher*, Bd. 229, No. 3.

From a large experience, POLACCO concludes that ichthyol not only deserves a permanent place in gynecological practice, but also commands a position in the first rank of remedies in the treatment of some of the most painful and rebellious diseases of women. Its analgesic action is very marked. Cases, in which violent pain has resisted the influence of morphine and codeine, have been quickly and permanently relieved by ichthyol generously applied. This remedy possesses a resolvent action equal to that of potassium iodide, with the advantage of perfect tolerance on the part of the human system, which has not been found wanting in a single case.—*Annali di Ostetricia e Ginecologia*, March, 1890.

Misplaced Pregnancy.—At the Russian Medical Congress, held at Moscow, DR. MOURATOFF presented the following conclusions: (1) The treatment of extrauterine pregnancy should be surgical from the very beginning. Thanks to the progress of modern surgery, intervention need not await the death of the fetus and the obliteration of the placental vessels. (2) During the operation the entire removal of the ovum is indicated; if any part is left, drainage is imperative. (3) We may hope that in certain cases the removal of the viable fetus by laparotomy may be indicated. DR. RIMM has done 16 laparotomies in extrauterine pregnancy. Of these 3 were tubal, 2 tubo-abdominal and 1 primitive abdominal. Death occurred in one case only. From an anatomical standpoint, extrauterine pregnancy may be divided into tubal, ovarian and abdominal. In its development extrauterine pregnancy follows the law of neoplasms. The diagnosis is sometimes very difficult. The two pathognomonic signs are expulsion of the membranes and contraction of the empty uterus. In doubtful cases one may have recourse to laparotomy. *Treatment:* (1) Laparotomy. Injections of morphine into the fetal sac and electricity when operation is contraindicated. DR. VARUCK had observed 7 cases of extrauterine pregnancy. Laparotomy was done in two cases only. Of the other 5, one died of peritonitis; in 2 diagnosis was uncertain between extrauterine pregnancy and pyosalpynx, and in 1 between extrauterine pregnancy and cystic ovary. In all these cases pregnancy was tubal. DR. SOUTOUGUINE said that two points in diagnosis are important: (1) Separation, by palpation of uterus and sac. (2) Rapid development of the tumor. DR. POPIALKOVSKY said if electro-puncture fails it is generally applied too late. Before the third month it is frequently successful.—*Tribune Médicale*, April 21, 1891.

The Vaginal Operation in Extrauterine Pregnancy.—DR. CHRISTIAN FENGER reports a successful operation of this kind. The patient had been pregnant a year. An incision in the vagina opened the amniotic sac. It could not be enlarged sufficiently to extract the child entire, hence craniotomy was performed. The adherent placenta was not disturbed, but being partially separated on the seventeenth day, was then removed. Patient recovered. The operation is only to be considered when the fetus is deep down in the recto-uterine fossa. The fetus was expelled through the rectum in 28 per cent. of extrauterine pregnancies, but vaginal operations have not been more frequent than 12 per cent. Only five cases of spontaneous expulsion through the vagina are on record. Fifty years ago in

9 cases of vaginal operation five mothers were saved, while by laparotomy every one was lost. So vast has been the improvement that in 1889, in 35 laparotomies, the mortality was only 17 per cent., while of 14 vaginal operations in 1887 50 per cent. were lost. DR. FENGER concludes: (1) In cases where the fetal cavity is still aseptic, the vaginal operation exposes the patient to danger of sepsis in the fetal sac, which cannot be guarded against. Abdominal section gives far better means of protection against septic infection. (2) Hemorrhage from the placenta cannot be controlled by the vaginal operation. By abdominal section, on the other hand, ligation of the internal spermatic and uterine arteries, as devised by OLSHAUSEN, might in some cases be accomplished as a means of checking hemorrhage from the site of a removed placenta in the territory supplied by these vessels. Abdominal section further permits of ligature *en masse* of the bleeding portions when the placenta has been divided at the place of incision. (3) Delivery of the child at full term is usually difficult, and thus dangerous to the mother, by the vaginal operation, but easy by the abdominal operation. (4) If the fate of the child is to be considered, the vaginal operation must be abandoned and replaced by abdominal section. (5) When suppuration has set in, in extrauterine pregnancy, presenting low down in the pelvis, and the placental circulation has ceased, the vaginal operation may be considered in comparison with the abdominal section. (6) The vaginal operation is strongly indicated in old suppurating fetal sacs, with disintegrated fetus presenting in the vagina.—*American Journal of Obstetrics*, April, 1891.

The Treatment of Pyosalpinx by Aspiration and Drainage.—The abandonment of procedures which were found trustworthy in the past for more brilliant, more radical (in an anatomical sense), though not uniformly successful methods, is deprecated by DR. EGBERT H. GRANDIN. The removal of the tubes in pyosalpinx, says this writer, often necessitates the extensive tearing of adhesions. But in the healing process new adhesions are formed very frequently binding the uterus and intestines, and compressing the pelvic nerves. Thus, although the pus tube is gone the suffering is as acute as before, and practically she has not been benefitted. Ten years ago pyosalpinx was treated surgically through the vagina, and records show that such cases were cured. Dr. Grandin has operated on two cases successfully, and proposes to substitute the following plan for laparotomies in future: Under irrigation with 1:6000 bichloride he aspirates the tube *per vaginam*, avoiding the urethral triangle. He passes a director along the aspirating needle, and along this, as a guide, with a slender bistoury, a small incision is made. The uterine steel-branched dilator enlarges this incision by tearing the tissues. The fingermay then be inserted into the cavity and its interior is thoroughly explored for the purpose of breaking down the pus cavities within. Exceptionally it is desirable to curette the cavity. Usually, however, the next step suffices for the destruction of microbes, pus, and pyogenic membrane. A small, hard rubber male catheter, or a Chamberlain tube is inserted into the cavity, and this is then washed out with boiled water, containing bichloride or carbolic acid, according to individual preference. Then fully a pint of the peroxide of hydrogen is allowed to flow into the cavity. This is the essential step, by means of which the pyogenic membrane is destroyed and pus formation is at once checked. The foaming on the injection of the peroxide of hydrogen need not alarm the tyro. When satisfied that the process of destruction of the membrane is complete, a gauze drain is placed at the bottom of the cavity and in a few days all that remains of the abscess is the shriveled tube surrounded by more or less exudation, which antedated, of course, the surgical treatment *per vaginam.—Archives of Gynecology*, March, 1891.

Statistics of One Thousand Confinements.—DR. JAMES W. MCLANE presents a report of the Sloane Maternity Hospital of the College of Physicians and Surgeons of New York, for thirty-three months. The hospital was endowed by a daughter of the late William H. Vanderbilt, and is considered a model one. It is of brick, three stories and an attic in height. The floors are of marble and vitrified tiles. The total number of beds is thirty-nine. Every precaution is taken to ensure perfect cleanliness. Of the thousand women confined, 377 only were born in the United States. Nineteen foreign countries were represented, Ireland leading with 320. More than half the cases were primipara. The vertex presented in 93.6 per cent. of cases; the breech in 4.9 per cent.—a very large proportion. Of the vertex cases 610 were in the first position, 227 in the second, 77 in the third, and 22 in the fourth. Labor was induced 12 times; the forceps were used in 83 cases, version practised 14 times, and craniotomy resorted to in 3 cases. There were 13 twins. No mothers were lost in the forceps cases; 9 of the children were stillborn. There were 9 cases of placenta previa, with loss of two mothers and four children. *Post-partum* hemorrhage occurred 14 times, with no deaths. The uterus was ruptured in one case, the patient being moribund on entering the hospital. There were six deaths of mothers; one each from chronic Bright's disease, rupture of uterus, placenta previa, placenta previa with contracted pelvis, eclampsia and septicemia. In three cases, rupture of uterus, placenta previa and septicemia, the patients were brought to the hospital only after the harm had become irreparable. The total deaths of children is not stated, nor are the measurements of the children given. *—American Journal of Obstetrics*, April, 1891.

Nature and Treatment of Diphtheria.—Diphtheria, says GUINON, is primarily a local disease, and the systemtic disturbance arises from the absorption of toxic products and the penetration of the tissues by the Klebs-Loeffler bacillus. The development of accessory microörganisms produces secondary infection and complications, such as suppuration of the glands, broncho-pneumonia, etc. As to local treatment, he prefers the Gaucher method, which consists in the removal of the membrane and the immediate application of the following solution: Camphor, 20, castor oil 15, 90 per cent. alcohol 10, carbolic acid 5, tartaric acid 1. He speaks of other applications, and with especial favor of the local use of ice. As indirect means of local antisepsis he employs sodium benzoate, cubebs and the subcutaneous injection of antiseptic solutions. He dwells on the importance of antisepsis of the digestive tract and of the system at large, and on the necessity of nourishing foods, of the generous administration of alcoholic stimulants, of pure air and of quiet in the sick chamber, so that the patient may obtain rest and sleep.—*Centralblatt f. klin. Medicin*, April 18, 1891.

HENOCH reports 192 cases of diphtheria, exclusive of scarlatinal angina or diphtheria which he in common with most writers on diseases of children, positively differentiates from genuine diphtheria. Of these, in 110 cases, the disease was limited to the pharynx, while in 82 it extended to the air passages. Of the 110 cases, 32 died; of the 82 tracheotomy was done in 70, while in the remaining 12 the disease was too far advanced to permit of operation. Of the 70 cases, 9, that is 13 per cent., recovered. In Henoch's opinion these unsatisfactory results are attributable to unfavorable material and surroundings, and especially to the strict exclusion from these statistics of all cases of idiopathic croup. In pure non-diphtheritic croup he has had 60 per cent. of cures by tracheotomy. Fever is an inconstant symptom, being altogether absent in some cases, and high in others—the temperature reaching 40° or 41° C. The prognosis depends largely on the extent of the diphtheritic deposit whose invasion of the hard palate, inner surface of the cheeks, tongue and lips is of unfavorable import. On the contrary, its invasion of the nose is not particularly a bad symptom. Nephritis develops, as a rule, from the third to the fifth day, while in scarlatina it occurs as a sequel in the third week. Edema, and especially uremia occur far less frequently in diptheritic than in scarlatinal nephrites. Croupous cough, hoarseness and aphonia do not necessarily call for tracheotomy, but frequently disappear spontaneously. The patellar reflex, which is generally lost in diphtheritic paralysis, was present in two of Henoch's cases implicating the soft palate. Disappointed in numerous and divers remedies, Henoch now uses acetic acid, which he employs in older children as a gargle, and in younger as a spray.—*Centralblatt f. klin. Medicin*, April 11, 1891.

SURGERY.

By T. W. HUNTINGTON, B. A., M. D., Surgeon Southern Pacific Company's Hospital Sacramento, Cal.,
J. F. MORSE, M. D., Surgeon German Hospital, San Francisco, Cal., and
G. F. SHIELS, M. D., C. M., F. R. C. S. E., Surgeon Polyclinic, San Francisco, Cal.

Reimplantation of Bone in Trephining.—DR. R. F. WEIR reports the following case (*New York Medical Journal*, May 16, 1891): At the site of an old injury, just above the frontal sinus, a disc of an inch trephine was removed; the internal table found angularly driven inward, but the spur was rounded at its summit and non-adherent to the dura mater. Nothing abnormal was recognized by a probe passed between the dura and skull, and the wound was closed. Two years later it was determined to make an exploratory examination of the brain. A large rectangular flap was carried upward from the eyebrow so as to expose the frontal bone on its right side from the median line to the outer angle, and up to the hairy scalp. Three one inch discs were removed by the trephine, and the bone openings coalesced and enlarged by a double gouge forceps until it reached a size of three by two inches. The right frontal sinus was largely invaded and found to contain nearly a teaspoonful of pus, but without any necrosed bone. A drill was carried from the bottom of the sinus into the nostril, a drainage tube placed in this new bony track, and the sinus then packed with iodoform gauze to protect the cerebral tissues, which were after this opened, from infection. No reason for cutting into the brain appeared by inspection or palpation. The dural flap was closed by sutures. The three bone discs, preserved meanwhile in a warm antiseptic cloth, were replaced, the interstices were filled up with the bone chips produced by the gouge forceps, and the wound was closed. In order to secure proper solidity, the pieces put back must touch the margins of the cranial opening, and the little pieces filling up the gaps must also touch this or each other. Necrosis of such replaced pieces of the skull, while possible, is yet a very exceptional result. The bones, nearly four years after the operation, are firm, and only on close inspection can there be seen a slight pulsation, which has only recently appeared. The whole bony surface is somewhat sunken, or rather it has not retained the natural curve of the skull. There are no irregularities to be felt, such as one would expect from the small pieces of bone used in addition to the bone discs. There has been no evidence of anything injurious occurring from their retention. Their asperities, doubtless, are soon smoothed off, and probably many of the pieces are totally absorbed. The slight yielding noticed in the bone scar, shown by the pulsation, illustrates in all probability such an absorption. It is pleasing to learn that this yielding can take place, for in cases of neoplasms or other lesions in which intracranial pressure is likely to again develop, the patient should not be deprived of the safety valve of a permanent cranial opening with a distensible skin covering.

The Pathology of Tuberculous Diseases of Bones and Joints.—In a lecture upon this subject (*British Medical Journal*), MR. WATSON CHEYNE remarks that, owing to the hip-joint being deeply placed, and that probably a large proportion of cases of hip-joint disease recover under expectant treatment, it is impossible to say whether the disease was primarily in the bone or in the synovial membrane. In the femur, the usual seat is in the lower part of the neck, just outside the epiphysial cartilage. In some cases it is further out in the neck of the bone, and even in the trochanter, but it is seldom that primary deposits are found in the epiphysis itself. In the acetabulum the disease generally commences in the neighborhood of the Y-shaped cartilage, and in some cases this cartilage may be completely destroyed. The relative frequency of soft caseous deposits and of sequestra varies much, according to the age of the patient, but in any case, apparently, sequestra are most common. In a case of hip-joint disease, where the primary seat of the trouble is in the bone, and the primary deposit is in the usual situation, namely: at the lower part of the neck, just outside the epiphysial cartilage, it spreads, on the one hand, towards the surface, and on the other toward the epiphysial cartilage. When the deposit reaches the cavity of the joint the whole surface of the synovial membrane becomes affected. The new tissue then spreads from the point of reflection of the synovial membrane over the articular cartilage, destroying it, and afterward attacking the surface of the bone, producing caries, and the affection of the cartilage begins, not only from the sides, but also from the points of attachment of the ligamentum teres. This process may go on until the epiphysial cartilage gradually becomes destroyed, at first at the lower part and subsequently, it may be, throughout its whole length; in this case the head, or its remains, may be completely detached from the neck of the femur. When the deposit is situated further out in the substance of the neck, or in the trochanter, it may not open into the joint at all, but outside the capsule, and thus lead to the formation of extra-articular abscesses; in these cases, however, the synovial membrane is very apt to become involved during the progress of the disease. The disappearance of the head and neck of the femur, and portions of the acetabulum, is partly due to the destruction of the bone by the tuberculous process, but chiefly to the ramifying osteitis which accompanies the disease, and which is generally very extensive. The absorption of the bone may go on rapidly, and lead to shortening and bending of the neck of the femur, and to enlargement of the acetabular cavity. This absoption is, to a great extent, brought about by pressure on the parts softened by the inflammation, this pressure being a very potent factor in keeping up the ramifying osteitis, and in causing the destruction of the bone. The pressure is not necessarily the result of standing, for even in bed, and with retentive apparatus, such as Thomas' splint, the tonic contraction of the muscles around the joint keeps the head of the femur constantly in contact with and exercising pressure on the upper and back part of the acetabulum. As a result the head of the bone gradually disappears, more especially at the upper and back part, where it becomes flattened. While the opposite part of the acetabulum becomes absorbed, new bone, though often only in small amount, being constantly formed from the periosteum around, and thus maintaining a buttress. This enlargement, or "wandering" of the acetabulum, as it is termed in Germany, often goes on to a great extent, and marked shortening and apparent dislocation on the dorsum ilii may result from the two processes. In fact, as is of course well known, this is by far the most common cause of shortening in hip-joint disease, true dislocation being rare. True dislocation usually occurs as the result of some sudden movement which causes the shortened head and neck of the bone to slip out of the acetabulum; but it may sometimes occur even where the articular surfaces have not been much affected. Under such circumstances, however, there is usually marked synovial disease, and the ligamentum teres has become softened and converted into a tuberculous mass, which may fill up the cavity of the acetabulum. A partial dislocation of the head of the bone is more common, and is often associated with destruction of the margin of the acetabulum without the formation of an efficient buttress, or with destruction of the ligamentum teres with out complete softening of the capsule. In this case the centre of the head is apt to be caught on the edge of the acetabulum, and a groove may be formed in it at the point of pressure. While the enlargement of the actetabulum and the absorption of the head of the femur are going on, caseation of the tuberculous tissue is taking place, and the joint cavity generally contains a quantity of caseous material derived from the surface of the synovial membrane and bone. About this time, also, chronic abscesses form around the joint, either inside or outside the pelvis, and the frequency of chronic abscess in hip joint disease depends on the treatment, the general condition of the patient, and various other more or less unknown factors. The primary cause of the whole trouble is the tuberculous disease, but the main changes which occur are brought about by the chronic inflammation which is set up by the tuberculous process, and which is often very extensive.

Knee-Joint.—The knee-joint is, after the spine, the most frequent seat of tuberculous disease, and young adults are most liable to attack. In this joint there is also a larger proportion of cases of primary synovial disease than in the hip, the proportion varying, however, according to the age of the patients. Pure synovial disease is the most common form in early life; primary osseous disease being limited mainly to adults. The situation of these deposits varies considerably, but, in contrast to the upper end of the femur, they occur at the lower end far more frequently in the epiphysis itself. In several sections, made of both femur and tibia, the deposit was not found beyond the epiphysial line. The parts most commonly affected are those which are exposed and those in the neighborhood of the points of attachment of tendons or ligaments. In the knee-joint the lower end of the femur, especially the internal condyle, is usually primarily affected, then the head of the tibia, and, much more rarely, the patella. It is not at all uncommon for the primary osseous deposit, especially if soft, to be quite small and situated immediately beneath the articular cartilage, which it destroys; and in these cases the deposits are often multiple. The more deeply-placed deposits may make their way into the joint, but they may, especially in the tibia, when extra-epiphysial, and also in the femur, when situated towards the posterior and upper part of the condyles, form a communication with the surface outside the capsule, and lead to the production of extra-articular abscesses. Here, as in the hip, the main destruction is due to the inflammation which accompanies the tuberculous growth, and also to pressure.

Ankle and Tarsus.—In the case of the foot, the disease occurs most often in those parts which transmit the weight of the body to the ground, namely: the ankle-joint, the os calcis, the head of the astragalus and the proximal end of the first metatarsal bone. In the ankle-joint primary synovial disease is decidedly more common than primary osseous disease, and the latter form begins most frequently in the upper part of the malleoli. In some cases the deposit in the tiba is extra-epiphysial. Of the tarsal bones the os calcis is most frequently attacked, and next to it the proximal end of the first metatarsal bone; the cuboid, probably, comes next in order, then the astragalus, and the scaphoid and cuneiforms last. In the os calcis, soft caseating deposits are more frequent than sequestra, and, as a rule, though not invariably, the projection of the heel escapes. When there is disease of one of the tarsal bones the others are very apt to become affected with ramifying osteitis, and in some sections made where the tuberculous disease was limited to one part of the tarsus the other bones were found softened so as to be merely shells of osseous tissue. In the tarsal bones, also, we often find, instead of a limited osseous deposit, a diffuse tuberculous osteomyelitis involving the whole bone.

Shoulder-Joint.—Disease of the shoulder-joint is almost entirely of adults, though it is sometimes observed in children. It is most often primarily osseous, and caries sicca is not uncommon. The disease commences, perhaps, most frequently in the great tuberosity of the humerus, and next in the neck of the scapula.

Elbow-Joint.—Disease of this joint is essentially an affection of young adults, and begins much more frequently in the bone than in the synovial membrane. Of the bones, the olecranon is the favorite seat, then the lower end of the humerus; the head of the radius only rarely.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M. D., Sacramento, Cal.

Indications for Intubation in Diphtheria.—DR. ESCHERICH reports the case of a patient about three years old with laryngeal diphtheria treated by intubation, and cured. In discussing the advantages and disadvantages of this operation, the author concludes: (1.) The value of the method cannot be judged by the percentage of cures obtained by the exclusive application of intubation or tracheotomy. The method must individually be selected for each case, and, according to circumstances, be changed if necessary. (2.) Intubation can cure diphtheritic dyspnea in a similar manner to tracheotomy. It will not do away with tracheotomy, but only replace it in a few cases. (3.) The advantages of the method are the easy *technique*, the avoidance of necrosis and wound. Its disadvantages consist in decubitus, *schluck pneumonie*, cough from irritation, difficulty in expectoration of membranes and secretions, and relatively insufficient aeration of the lungs. (4.) Therefore, if the lungs and bronchial tubes are already affected, if the patients are weak naturally or from prolonged illness, or if there is sepsis, tracheotomy is preferred. (5.) The best cases for intubation are primary diphtheria of the larynx, without sepsis or collapse. (6.) In these cases also tracheotomy must follow as soon as the disease becomes more severe and respiration insufficient. (7.) Intubation can be used provisionally in cases of urgency.—*Wiener klin. Woch.*—*Journal of Laryngology*, May, 1891.

Cases Illustrating the Effect of Tuberculin and Cantharidinate of Potash on Lupus and Tuberculosis.—LENNOX BROWNE gives the history and his observations of several cases treated by these remedies. *Case I* was suffering from lupus of the face, especially of the nose and larynx. Eleven injections of tuberculin have been given, beginning with 2 mg. and increasing to 2 cg. The lupus of the nose is not cured, but improved. The condition of the larynx has, however, exhibited a great, though gradual, change for the better; "a change which is not comparable with any treatment I have hitherto seen pursued with that exceedingly torpid disease." The bodily weight has increased 5 pounds during the 3 months of treatment. *Case II*, also a patient with lupus of nose, face and larynx. He has had 9 injections in 3 months, beginning with 3 mg. and increasing to 1 cg. Cure has not thus far resulted. The general reaction has been very severe, the temperature having risen as high as 104.8° F. The general health has not, however, been impaired, as the patient has gained 6½ pounds. *Case III.* a woman, æt. 41, has had 13 injections of tuberculin for lupus of the ear. The improvement has been very marked. *Case IV*, a man, æt. 40, with considerable hyperemia of the left vocal cord and ulceration just anterior to the position of the vocal process. There was slight dulness at both apices and a tubercular family history. March 5th an injection of 1 mg. of tuberculin was made, followed in 4 days by 5 mg. On the 13th an injection of 2 dg. of Liebreich's solution was used instead of tuberculin. The temperature has not been increased by 2 injections of this remedy, but it has not become less than when patient entered the hospital. A swollen gland at the angle of the jaw became softer and smaller, and the pain which he had on swallowing almost entirely disappeared under the influence of tuberculin. There has been no improvement nor retrogression under the influence of the substituted remedy, except that the night sweats are diminished. The ulcer in the larynx gives evidence of healing by granulation. Later, an examination shows that the affected cord is quite healed, but somewhat congested. He has had 3 injections of tuberculin and 35 of Liebreich's remedy. The temperature has become normal and his weight has increased 5 pounds. *Case V.*—W. S——, æt. 29, iron-worker, has marked redness and thickening over the bridge of nose, the surface of which is smooth and unbroken. The swelling is tender and sometimes painful. The nose is almost blocked by reddish granular material, with crusts and purulent discharge. The epiglottis is eroded, distorted and thickened, hiding the glottis. He had an injection of 0.002 gm. of tuberculin on March 11th and 0.003 gm. on the 17th. He reacted well, and nasal breathing was considerably improved, but the cough was increased. It was decided to use potassium cantharidinate after a rest. On account of dysuria and vesical tenesmus, the patient was unable to continue Liebreich's remedy, and tuberculin injections were therefore resumed with good local effects and no untoward constitutional result. *Case VI.*—A girl, æt. 19, was admitted January 18th, complaining of pain in the throat and cough. Epiglottis thickened and clubbed; arytenoid thickened and congested, also posterior commissure and ventricular bands, to the extent of almost hiding the vocal cords, which are somewhat pink. Was given 6 tuberculin injections, beginning with 0.001 gm. and increasing to 0.004 gm. Deglutition, which was previously painful, was quickly relieved and ceased to cause pain. Voice became quite clear after third injection, while the expectoration was much increased. The laryngeal changes were marked. At first the general swelling was increased. On February 5th three necrotic patches appeared on the epiglottis and arytenoid, which subsequently ulcerated, and then the thickening disappeared. Cantharidinate of potash could not be endured, and the patient was discharged with some symptomatic improvement. Including those already mentioned, the author has had 14 cases under his care, of which 8 were tuberculosis affecting both larynx and lungs, 5 of lupus, and 1 of tuberculous glands. He has had no case with such marked improvement in the larynx as he had seen in Berlin.—*Journal of Laryngology and Rhinology*, May, 1891.

SYPHILIS AND VENEREAL DISEASES.

By G. L. SIMMONS, JR., M. D., Sacramento, Cal.

AND

DERMATOLOGY.

By D. W. MONTGOMERY, M. D., Professor of Pathology, University of California, San Francisco.

The Medico-Legal Value of the Gonococcus.—PROF. J. KRATTER reports a number of cases of vulvo-vaginitis in girls, where a positive diagnosis could only be made after finding the microörganism in the discharges. He says that without a bacteriological examination it cannot be determined whether or not a vaginal discharge (after rape) is traumatic or infectious, and that the detection of gonococci in such a discharge is proof positive of the presence of gonorrhea, which has probably been conveyed in the sexual act. If the result of such examination be negative it does not, however, justify one in absolutely excluding gonorrhea, as there are cases of undoubted gonorrhea in which few gonococci are found, and only after repeated examination.—*Berliner klin. Wochenschrift.*—*Journal of Cutaneous and Genito-Urinary Diseases*, December, 1890.

The Pathological Anatomy of Psoriasis.—DR. E. KROMAYER (*Arch. f. Derm. u. Syph.*), develops some peculiar theories as to the anatomy of the skin—maintaining, for instance, that the papillary layer belongs anatomically and physiologically to the epidermis. His account of the pathological anatomy of psoriasis adds nothing to our knowledge of the subject. He rediscovers the fact already noticed by Hebra, that the first changes occur in the papillary layer, and consist of a hyperemia with some emigration of leucocytes. The process is nevertheless not an inflammation, as the cardinal features of inflammation are absent. It is rather to be regarded as a progressive disturbance of nutrition.—*Journal Cutaneous and Genito-Urinary Diseases*, April, 1891.

Leprosy, its Spread by Hereditary Transmission or by Contagion.[1]—In a paper read before the tenth International Medical Congress at Berlin (*Archives f. Dermatologie u. Syphilis*, 1891, Hft. 1) DR. EDWARD ARNING said that the main point in the whole question was, whether heredity or contagion plays the chief part in the spread of the disease. He took it for granted that all believed leprosy to be an infectious disease, and that the bacillus of HANSEN and NEISSER was the infective agent. We did not, however, know the conditions of its reception into the body, how it enters or when there how it increases or, indeed, anything of its life conditions. He would, therefore, confine himself to epidemographical facts.

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[1] The attention that the question of leprosy is now attracting in California, together with its importance from the fact that several cases have been discovered in this State, and that there are certainly others to be found, will render this article of special interest. D. W. M.

Is the Hereditary Transmission of Leprosy either Probable or Proven? Syphilis is the type of the hereditary diseases. The term hereditary is an evasion of the real question, which has been principally used in tuberculosis. In syphilis we find all grades of direct hereditary transmission, from the fetus dead *in utero*, or the infant born with, or showing shortly after birth manifestations of the disease, up to those where parental disease causes only more or less general lowering of health in the children. There is nothing of the kind in leprosy. There is no disease of the fetus, and rarely any of the infant. Some few cases have been reported where the disease began during the first two years of life, and in those the affection appeared just as in adults; there are no typical symptoms, as in syphilis, by which the hereditary disease may be diagnosed from the acquired. From the clinical manifestations of leprosy in children, we therefore cannot find proofs or support for the theory of heredity. Clinical observation has yet another fact against heredity as a factor in the general endemic spread of the disease. Girls acquiring leprosy before puberty are almost always much less developed sexually than healthy individuals of their own age. They develop late and incompletely, and the functions of the ovaries are particularly implicated. This may, sometimes, be owing to leprous ovaritis, as I have demonstrated in the case of a young girl who died of leprosy. In the ovarian stroma there was an inflammatory infiltration, evidently caused by immense numbers of lepra bacilli. If leprosy develop in menstruating women, it causes a disturbance of sexual functions, and the menopause comes on unusually early. Although this sexual deterioration is marked in the female, it is still more marked in the male. It has long been known that, in general leprosy, the testicles are almost always affected, and, quite contrary to the old teaching of *satyriasis leprosa*, the experience of late years has shown that the *potentia virilis* is almost always lowered, and in very many instances, after the disease has lasted only a few years, there is complete impotence. This seems to me to be a very decided difference between leprosy, and tuberculosis and syphilis, and it would be strange, indeed, if a disease, which so decidedly and thoroughly disturbs the sexual functions, should owe its spread chiefly to inheritance. It is not meant by this that children born either just before or after the outbreak of the disease in either one or both parents do not more easily acquire leprosy than others. On the contrary, it is my opinion that leprosy is particularly a family disease, but that does not prevent such events being looked upon as early infections. This is not such a forced position as the idea of a supposed heredity, with an undefined latent period. In addition, it may be proved that when whole families are infected, in many instances it commenced in a child, and that first the children and then the parents contracted the disease. Furthermore, in lepra countries it often happens that when one or both of the parents have leprosy some of the children remain healthy, and others sicken, and that without any chronological order being observed. It would do much to decide this question if a proposition I made to the Hawaiian government could be carried out, which was to separate the still healthy children of leprous families, and in other countries such measures would be advisable, when a forced segregation of the disease cannot be carried out. If a large per cent. of such children should remain healthy, it would be a weighty argument against the theory of heredity. So long as our knowledge of leprosy rested on the teachings of the older Norwegian investigators, it was very natural that the theory of heredity should prevail. But those investigations occurred at a time when the doctrine of hereditary syphilis began to be formulated, and when the humorel pathology, with its abstract reasoning, still prevailed. Under these conditions the teaching originated in a country where leprosy had been endemic for five centuries, and where the people were settled and without active intercommunication. The disease continued from year to year, confined to certain family groups. It is not strange, therefore, that the doctrine of heredity should arise and become firmly rooted. It appears to me, however, that the theory of the heredity of leprosy is an inheritance of a past pathological era, from which we should disentangle ourselves in order to see clearly and without prejudice. This theory would never have arisen at the present day. Leaving out of account the fact that we now know the infective agent in this disease, the general intercommunication of peoples, the freshened activity of the most different races of mankind, and a certain general knowledge of the hygienic surroundings of different quarters of the globe, have created a set of conditions which force us to the conclusion that the great and rapid spread of leprosy in places where it was formerly not endemic, is not explicable on the theory of exclusive or essential transmission by heredity. To maintain this position, single cases must be brought forward, and this is not at all easy, because of the eminently chronic course of the disease. Out of the immense mass of material which has been gathered as proof, we must choose only cases in which not alone heredity, but even an hereditary predisposition has been excluded, and where not too long a time has elapsed between the possibility of infection and the manifestation of the disease.

The following case seems to me to answer these requirements particularly well. A lady, in her twenties, came from a non-leprous part of the United States to Honolulu. Neither she nor her parents, nor any of her relatives had ever come in contact with leprosy in any way. Three months after her arrival she noticed a small, red, slightly raised spot on the extensor surface of the left forearm, which slowly enlarged, and resisted all treatment. After the lapse of a year she noticed the spot was anesthetic, but it did not trouble her in any other way. After two years there developed a group of papules slightly depressed below the surface, the affected area being about the size of a fifty-cent piece; it looked like lupus, but differed in being absolutely anesthetic. The anesthesia had extended beyond the borders of the patch into the neighboring, apparently sound, skin. The affected skin at times swelled up as if with nettlerash, and vague, dull pains ran up toward the elbow. The whole patch was removed without causing pain. Groups of lepra bacilli were demonstrated microscopically in the granulation tissue. It seems beyond a doubt, that in this case we had to do with a primary localization of the lepra virus in the skin, and that under the circumstances both climatic and telluric influences can be eliminated. The cases of Hawtry Benson, of Dublin, and Atkinson, of Baltimore, are in many ways more striking than the above. They are, briefly, as follows: A person free of hereditary taint, and living in a non-leprous country, out of which he had never been, became affected with leprosy after coming in contact with another person who had acquired leprosy in a foreign country. These are nearly classic proofs of the transmission of leprosy by contagion. Less absolutely conclusive, but still not without a certain weight, are such cases as Heidenstamm has lately reported in Cyprus, similar to some I have observed in the Sandwich Islands: A leper comes into a district, which up to then has been free of leprosy, and in a few years, a much shorter time than were possible by hereditary transmission, a number of persons become affected, and all these cases can be traced back concentrically to the first case. Finally, I wish to bring against the theory of heredity some recent observations in neighborhoods where, besides a population composed of aborigines and mixed breeds, there is a large class of white immigrants who may be looked upon as free of hereditary taint. Blanc, in a report of leprosy in Louisiana, tells that of his 42 New Orleans cases, 30 per cent. had either one or both parents of European birth. Of these, 7 were born in Germany, and 1 each in Austria, France and Italy. According to the census of 1884, there were in Hawaii, natives and mixed breeds, 44,232; foreigners, exclusive of Chinese and Japanese, 17,935. If we estimate moderately the number of leprous Hawaiians at 1,500, we have the frightful proportion among the Kanakas of 1 leper to 30 not affected with leprosy. Among the 17,935 whites I know 35 to be lepers, and I count only those affected at that date, or shortly after. All the half whites are also excluded from this list. We here get a proportion of 1 leper to 514 non-lepers, among a class in which heredity can scarcely be taken into account. Finally, I wish to mention the results of Hansen's journey to North America. Hansen found amongst the emigrant Norwegian lepers in the United States, that of 160 immigrants 17 were still living. Not one of their descendants had acquired the disease. I need not tell you that leprosy is perfectly independent of both climatic and telluric influences. It must be strenuously urged that leprosy is introduced, and spread solely by leprous individuals. It is exclusively a disease of mankind, and not, as is tuberculosis, also of the common domestic animals. Under very favorable conditions the disease is probably transmissible directly from man to man, or through food; this last, however, is not proven. The fish diet theory, recently taken up again by Jonathan Hutchinson, seems to me, by its exclusiveness, untenable.

Another point upon which much stress has been laid in its relation to the Hawaiian epidemic by the late Dr. Hillebrand is worthy of closer study. *Has leprosy been spread in the Sandwich Islands by vaccination?* There can be no doubt of the synchrony of the spread of leprosy and of the introduction of vaccination in the Sandwich Islands, but many sources of error are opened should we try to bring the two into the relationship of cause and effect. The first authentic cases of leprosy I could find occurred in 1830, but its frightful spread over the whole group of islands was observed 25 years later, at a time when a severe smallpox epidemic gave rise to an universal and, for the most part, carelessly performed vaccination, mostly done by laymen. This fact has been used by Hillebrand and others as an argument for the spread of leprosy by vaccination. Although we cannot overlook the fact of this synchronism, we can explain it in another way. In 1830 there were well-developed cases existing; therefore we must go back a few years for the introduction of the disease. During the earlier years there would be a slow increase around the first centres, and its apparent sudden increase in the fifties would be owing to a new generation growing up and spreading the disease from their own families. We must not forget the enormous influence exerted on the aborigines just at this period, between the thirties and the fifties, by the introduction of civilization and the influx of a great Mongolian and Caucasian immigration. I attach more weight in the decision of this question to another observation made at a much later period, and in which no concomitant factors had to be taken into account. On excellent authority—unfortunately no statistics on the subject are obtainable—I find that a remarkable increase of lepra cases was observed at Lahaina, on Maui, in 1871 and 1872, about a year after a very careless arm to-arm vaccination. Some 50 to 60 cases suddenly appeared in this district, which, until then, had been comparatively free from the disease. Experiments that I made to clear up this question while vaccinating lepers, turned out as I expected. In general cutaneous leprosy, where seemingly normal skin contained lepra bacilli, the bacilli were also found in the vaccine; in cases of pure lepra nervorum, where the skin does not contain bacilli, they were not found in the lymph. In Gairdner's case, an unnamed physician, on an unnamed tropical island, vaccinated his own child from a native child, who, later on, became a leper. He vaccinated another child from his own, and both became lepers. In Hawaii I have treated a 12-year-old German boy for leprosy, from whom many white families had been vaccinated five years before. I know of no case attributable to this vaccinifer, but, if such appeared, it would tend to show that vaccination from arm to arm ought to be forbidden. Very recently it has been maintained by Ashmead that, if the hypothesis of the transmission of leprosy by vaccination be true, leprosy ought to be much more prevalent in Japan than it is, on account of the custom of tatooing so much in vogue. On the other hand, he thinks that mosquito bites are much to be feared in the spread of the disease, and I admit that this theory is very enticing. And it is particularly interesting, because the mosquito plague and the introduction of leprosy into the Sandwich Islands occurred nearly at the same time. It was toward the close of the forties that mosquitos were introduced, probably from China. I have examined mosquitos found under the mosquito-nets of severe cases of leprosy. The insects, filled with blood, were examined, but without a positive result in any case. The insect-sting theory, like the vaccination theory, deserves further careful investigation, and it would be interesting to find if lepra countries are also insect-plagued countries. It is possible that the spores of the bacilli, which, up to the present, we have been unable to see, exist in insects.

In close connection with the possibility of transmission by vaccination, stands the question of the intentional transmission of the disease from man to man by inoculation. At last year's Congress of Dermatologists, held in Prague, I mentioned the successful inoculation of the murderer Keanu [MEDICAL TIMES, Vol. IV, p. 31.] In the history of the case I mentioned that, as far as I could learn from Keanu and from those who knew him, his family, for a Kanaka, was remarkably free of the disease, but that these assertions, coming from natives, ought to be taken with a grain of salt. The outcome justified this reserve, for Dr. S. B. Swift, Physician to the leper settlement, on Molokai, has now under his charge [MEDICAL TIMES, Vol. IV, p. 171] a nephew and a son of Keanu, and a cousin of Keanu has also been declared a leper. Against all this, I must lay stress on the facts that Keanu himself, at the time of inoculation, was free from the disease, and that in September, 1887, three years afterwards, he showed undoubted signs of leprosy, and at the present time is a typical leper. Dr. Swift says it is almost incredible the disease should have made so much progress in five years. As for the rapid course, Father Damien is an instance in a still more marked degree. In July, 1882, he fell ill with a neuralgia of the left foot. I examined him Nov. 25th, 1884, and found a typical analgesia, and atrophy of the skin of the outer side of the left foot, and a swelling of the left superficial peroneal nerve. I then told him frankly my diagnosis of leprosy. In 1886, the first infiltrations of the face had appeared, and in July, 1889, he succumbed to the disease. We have here a fatal termination occurring seven years after the first appearance of the disease, and, reckoning from the commencement of the tubercular stage, in three years. Although such a rapid course is not frequent, still I could cite many similar ones out of my experience in the islands. In judging of the significance of my inoculation experiment, I beg not to consider the naked fact alone, that the inoculated Kanaka became an undoubted leper three years after the inoculation, but to go over the details of the experiment. What we really want, in order to prove positively the contagiousness and inoculability of leprosy, is some positive means of proving the vitality of lepra bacilli. The impossibility of proving, in any particular case, whether we have to do with living or dead bacilli, is undoubtedly the rock on which all previous investigations have been shattered. It would be a great advance if we could, in some way, prove, for instance, the viability of the lepra bacilli found in the feces in cases of intestinal leprosy, or if we could show that those found in bodies after years of putrefaction, or maceration, were capable of being infective agents. If we only had the same criterion to judge of the life of the lepra bacillus as we have of the tubercle bacillus, I could have proved that the bacilli found in the keloid-like scar, on Keanu's forearm, fourteen months after inoculation, were living, whereas, from the present state of our knowledge I must let pass without challenge the assertion that they were dead, and lay like harmless foreign bodies in the tissues. We will never be able to decide the question of direct contagion, or of infection through the intervention of the ground, of water, or of food, till we are able to show a comprehensible difference between living and dead bacilli, either by culture, or by invariably successful inoculations on the lower animals.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M. A., M. B., C. M., Professor of Clinical Medicine, University of California, San Francisco.

Tissue-Conserving Drugs.—REICHERT, in a paper recently published, discusses fully the action of alcohol, tea, coffee, cocoa, coca maté, kola, guarana, hemp, tobacco and opium, and he concludes that the only one which is a food in any way is alcohol. All this class have three chief actions, namely: the production of mental exhilaration, the excitation of the energy-yielding processes, and the ability to furnish energy through their own decomposition. The paramount influence varies in different drugs; for example, opium and tobacco act chiefly mentally, while the chief action of cocaine or caffeine is to excite the energy-yielding processes. From the result of experiments on dogs, he concludes that caffeine increases enormously the production of heat. So rapidly is heat formed, that the system is unable to throw it off; it thus accumulates in the body, and the animal's temperature may rise as much as 4° C.—*British Medical Journal*, March 7, 1891.

Diuretic Action of Mercurials.—JENDRÁSSIK contributes a long article on this subject as a sequel to his earlier observations. By the use of calomel he has seen the urine rise from a few ounces to usually about 250 ounces in 24 hours, the maximum reported being 370 ounces. All the mercurial preparations exercise the diuretic action, but he finds calomel most convenient. In a case of aortic disease, with great edema, small amount of urine containing albumin, tube casts and blood, he gave it with the following results: On October 18th, urine 13 oz.; 19th, urine 30 oz., 3 gr. calomel 4 times; 20th, urine 30 oz., 3 grs. calomel 5 times, which caused severe diarrhea in spite of opium being given; 21st, urine 25 oz., 3 grs. calomel 4 times, diarrhea continued; 22d, urine 63 oz., calomel stopped; 23d, urine 113 oz.; 24th, urine 86 oz., edema and breathlessness gone; 25th and 26th, urine 40 oz. Smaller doses often suffice without causing any diarrhea. The drug acts better in cardiac than in other forms of dropsy. He also tried its effect on healthy young men, but got absolutely no increase of diuresis, and concludes that with a normal condition of the circulation any diuretic effect must be slight, and is extremely doubtful. The cause of the diuresis has never been satisfactorily determined, although many theories have been promulgated. It is agreed that mercury does not act by raising the blood pressure or by stimulating the heart. Weinstein is of opinion that the cathartic and sialogogue effects withdraw fluid from the blood, thicken it, and thus induce an inflow of the exuded serum. Such a theory is untenable, as diuresis is often produced without diarrhea. Spiller Locke, Talfourd Jones and others hold that the mercurials increase the amount of urea in the blood, and that the latter has a diuretic action. The amount of urea, however, is never sufficient to account for the great increase of urinary water and other substances which greatly increase the urea, such as salicylate of sodium, do not act so powerfully as the mercurials; in Bright's disease also, where urea is in excess in the blood, no diuresis results. A third theory is that the renal epithelium is directly stimulated, and this is the one most generally held. Jendrássik, however, points out that in the healthy no diuresis occurs. He himself seeks the explanation in the condition of the blood. In cardiac diseases, with dropsy, the blood, he says, is denser than normal. In addition, the mercury forms with its albumin a combination which increases the tendency of fluids to dialyse it. Experiments with dialysis are given to prove this. Hence, when mercury is given, the exuded serum tends to diffuse readily into the capillaries again, and the watery part of it is excreted by the kidneys. In ascites and pleurisy, with effusion, the exudation is extremely dense, much more so than dropsical fluid, and hence will not diffuse readily. This is the reason why calomel fails to act in such cases. In Bright's disease, on the other hand, the blood is so watery that diffusion of the exuded serum will not take place into the capillaries.—*British Medical Journal*, February 28, 1891.

Treatment of Typhoid Fever by Chloroform.—DR. STEPP has reported eighteen cases of typhoid fever treated by the internal administration of chloroform. In most of these cases he gave about six drops of chloroform in two ounces of water thrice daily, but occasionally made a slight change by the addition of a scruple of quinine. The result of this treatment was that in a few days drowsiness and delirium disappeared, the dry coated tongue became moist and the general state considerably improved. The temperature fell considerably in from eight to ten days, the stage of remissions was cut short and convalescence accelerated.—*Lancet*, March 14, 1891.

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M. D., Demonstrator of Pathology, and Adjunct to the Chair of Clinical Medicine, Cooper Medical College, San Francisco, Cal.

Tachycardia.—FRAENTZEL, in a paper on this subject (*Münchener med. Wochenschr.* February 3, 1891), read before the Berlin Medical Society, says that the number of reported cases of tachycardia increases from year to year. He does not reckon habitual increased pulse frequency occurring in the course of organic cardiac affections in this category, but rather those cases of paroxysmal pulse frequency (180 to 200 beats a minute), corresponding to the "Essential paroxysmal tachycardia" of the French. The phenomenon is explainable in two ways: either by a paralysis of the vagus or irritation of the accelerating fibres of the sympathetic. The latter explanation is the more easy to comprehend. Morphine will often check a paroxysm, and so will digitalis or compression of the vagi, but in other cases the affection lasts for years and suddenly passes away. Its uncertain etiology accounts for the insufficiency of medication. A. FRANKEL, in discussing the paper, said that the affection was a neurosis developed in patients affected with heart disease. He had never observed paroxysmal tachycardia with a normal heart. The paroxysms are often developed after pressure at stool. The prognosis is usually good, although acute cardiac dilatation frequently occurs. KLEMPERER had seen many cases of tachycardia in connection with dyspeptic symptoms. In one of his patients the paroxysm was attended with hyperacidity of the gastric secretion that readily yielded to bicarbonate of soda. STRAHLER had observed a case caused by the pressure of a swollen lymphatic gland on the vagus, the removal of which caused the paroxysms to cease. [I have observed tachycardia in the following cases: A woman with mammary cancer suddenly developed an irritating cough without expectoration or signs of involvement of the respiratory apparatus. Subsequently dulness on percussion was noted in the sternal region, and the pulse frequency was increased to 130 beats in a minute, continuing up to the time I last saw her, in spite of all medication. Metastatic implication of the bronchial lymph glands pressing on the vagus was assumed to exist in this case. The second case, also a woman, exhibits after dyspeptic disturbances or excitement of any kind, paroxysmal tachycardia, exophthalmos and goitre, a symptom complex referable to irritation of the accelerating fibres of the sympathetic. The term "acute exophthalmic goitre," if permissible, would be applicable in this case, as all the symptoms became less pronounced, and sometimes disappear entirely in from three to twelve hours. Therapeutic interference is also of no avail in this patient in inhibiting the accelerated heart action.—A. A.]

Examination of the Teeth in Diabetes.—MAGITOT refers (*Bulletin Médical*), to osteo-periostitis as a constant symptom of diabetes. It is present at the beginning, as well as during the entire course of the disease. In the early stages, osteo-periostitis is manifested by deviation of the teeth; in the second stages by loosening of the teeth and alveolar catarrh; in the third stage representing the advanced period of the disease, by falling out of the teeth. In advanced cases, if diabetes is not checked, absorption of the alveolar process of the jaw may occur, preceded by gangrene of the gum. The latter sign is of prognostic importance by indicating a lethal termination of the disease.—*Wiener med. Presse.* [Caries of the teeth is an important symptom in diabetes mellitus, and is undoubtedly provoked by the acidity of the secretions of the mouth, due to the development of lactic acid, the result of fermentation of the sugar present in the saliva.—A. A.]

Tubercle Bacilli in the Blood During the Use of Kochine.—DR. VICTOR LIEBMAN gives the histories of nine patients treated by Koch's method, in all of whom the bacilli of tuberculosis were found in the blood. They were present in patients who reacted violently and promptly to small doses of tuberculin. Miliary tuberculosis was excluded in each case. In the blood of tuberculous patients not treated in this manner, repeated examinations of the blood failed to demonstrate the presence of the tubercle bacilli.—*Berlin. klin. Wochenschrift.*

The Cure of Tuberculosis by Intercurrent Infectious Diseases.—W. H. MACNAMARA mentions a case of diffused tuberculosis of the lymph glands, which resisted treatment for months, eventually succumbing to an attack of erysipelas. B. Thornton has observed cured cases of chronic tuberculosis of the joints and glands after erysipelas. A. Eddowes refers to the following case: A servant girl, aged 16, with pronounced symptoms of pulmonary phthisis, developed an attack of articular rheumatism. Immediately following this attack all the symptoms of phthisis receded, and the patient is pronounced cured. A somewhat analogous case is reported by Cole. The patient had all the symptoms of acute phthisis, which completely subsided after an attack of articular rheumatism. The patient subsequently died from tubercular menengitis.—*British Medical Journal*, Feb. 7, 1891. [Transfusion of blood from patients affected with articular rheumatism to tuberculous subjects has already been suggested by an enthusiastic writer. It remains for some one to suggest inoculation with the streptococcus erysipelatos.—A. A.]

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. Hoisholt, M. D., Assistant Physician, State Asylum for Insane, Stockton, Cal.

Aphasia and General Paresis.—Rosenthal reports three cases, two of which accompanied dementia paralytica. The first patient, a general paretic, was unable when received, to express himself intelligibly, although he understood what was said and could repeat words spoken to him, without difficulty. The right side showed more impairment of motion than the left. Subsequently there was an epileptiform attack, which left total right hemiplegia and complete aphasia. In this condition the patient remained until death, nine months later. At the autopsy there were found atrophy of the frontal lobe, with softening of the posterior half of the orbital portion of the second frontal convolution, of the tip of the left temporal lobe and of a large portion of the left island of Reil. The aphasia was attributed to the latter lesion. The second patient, also a general paralytic, suffered at the time of his admission from aphasia, with complete word deafness, which had come on in consequence of an apoplectic attack a year previously. There had been transient right hemiplegia. He only uttered a few unintelligible sounds, expressed himself by gestures, and understood nothing of what was said to him. Death occurred from edema of the lungs, following general convulsions. The *post-mortem* examination revealed thickening of the pia mater, especially over the frontal lobes and anterior central convolutions, which were atrophied. Several small hemorrhages, from the size of a pin head to that of a pea, were found in the left hemisphere, and also a remarkable atrophy of the first left temporal convolution, which measured only 4 cm. in length and ½ cm. in breadth, while the corresponding right convolution was 7 cm. long and from 2 to 3 wide. The hemorrhages were apparently recent, and the aphasia and word-deafness were attributed to the lesion of the temporal lobe. In the third case the patient's illness was due to a severe blow on the head, which was followed later by an apoplectic seizure, leaving behind it right hemiplegia and aphasia. When received under treatment there was paralysis with contractures of the right extremities, general muscular weakness, speechlessness, and apparent inability to understand what was said. The patient died from pneumonia. The whole left hemisphere was found reduced in size; it was at least a third smaller than the right. The atrophy was especially marked in the frontal and temporal regions, and there was yellow-softening of the posterior half of the first left temporal convolution.—*Centralblatt f. Nervenheilk.*—*Dublin Journal of Medical Science*, January, 1891.

Overwork and General Paresis.—Dr. Cuylits, in an article (*Bull. de la Soc. de Méd. Mentale de Belgique*), on the subject of overwork and its relation to general paralysis, considers the question whether the healthy brain is capable of overwork. Healthy men, in spite of earnest endeavor, fail to study or work when they have a headache. Long before the headache period is reached, they lose the power of thought and fall asleep. Genius accomplishes great things without succumbing to excessive toil, as Shakespeare, for instance. To relieve pain, Pascal wrote his "Penseés," and the trials of Montesquieu were solaced by work. Intellectual labor *per se* is without danger. Witness the great age of men of mind. Newton, 85; Humboldt, 90; Van Ranke, over 90; Victor Hugo, 83, and Michael Angelo, Titian, Cherubini, were all over 80 when they died. With the hereditary degenerate the matter is quite different; his mental tasks are performed at the price of fatiguing, constant, conscious effort. Emotion, enthusiasm, study—everything overworks him; he goes through life like the lame man in the street—always in danger of falling and sustaining a fracture. The normal brain is capable of supporting great demands without giving rise to secondary pathological changes. The brain atrophies slowly, more so than all other organs in extreme old age. Those that can be overworked, fall victims to melancholia and dementia. Overwork is, however, not a cause for paralytic insanity.—*Journal of Nervous and Mental Diseases*, January, 1891.

Pains in Amputated Limbs as a Basis for Damages.—A short time ago the question came up in a New York court, whether the sensation of pain sometimes felt as if coming from an amputated limb is a proper basis for compensation The action was against the Delaware, Lackawanna and Western railroad; and the defense brought forward that this pain is purely imaginary, and a delusion; that the arm having been cut off there could not possibly be any pain located in it. The plaintif had been allowed to testify on the trial that he had suffered continuous pain, seemingly located in the amputated hand and arm; which testimony, however, the defense contended had been improperly allowed, and appealed the case. The Court of Appeals, in deciding that the objection was not well taken, and that the testimony was perfectly competent, says: "The reason urged in support of the exception is, that such pain was imaginary and a pure delusion, and not the direct or natural result of the injury. The plaintiff had mentioned this as part of the painful suffering he had endured after the accident and the amputation of his arm. Whatever was its nature, if his statement was true, the sensation was that of pain, and the result of the injury; and if the sensation of suffering from it actually existed, and was attributable to such cause, the evidence came within the rule of admissibility. Pain is but the sensation of a condition which produces it, and the fact that it seemed to the plaintiff to come from or to be in the hand and amputated arm, as if their connection with the body remained, is only descriptive of the pain he suffered. It was no less the subject of consideration because the location of it was deceptive." –*New York Medical Journal*, February 7, 1891.

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., Sacramento, Cal.

Mortality.—The deaths registered in 67 town districts of the State during the past month, in a population of 674,830, correspond to an annual rate of 18.91 a thousand, the total mortality having been 1,064. 82 deaths were due to zymotic diseases, giving an annual rate of 1.45 a thousand. Of these, 48 were due to diphtheria, 14 to typhoid fever, 7 to diarrhea and dysentery, 6 to cerebro-spinal fever, 1 to scarlet fever, 3 to cholera infantum, and 3 to whooping cough. 365 deaths resulted from diseases of the respiratory organs, giving an annual rate of 6.48 a thousand. Of these 164 were due to consumption, 153 to pneumonia, 40 to bronchitis, and 8 to pulmonary congestion; the rate being for consumption and pneumonia, 2.92 and 2.71, respectively. 63 deaths resulted from diseases of the heart. The average annual death rate from all causes, occurring in the ten largest cities and towns in the State, and representing a population of 517,250, was 20.02 a thousand. The highest rate for the month, occurring in cities having a population of 10,000 or more inhabitants, was reported from San Jose; the lowest from Fresno.

METEOROLOGY.

By J. W. Robertson, B.A., M.D., San Francisco, Cal.

Summary for April.—*Temperature.*—No abnormal changes of temperature occurred in April. This is the one month in the year when there is little difference between the coast and valley belts; the temperature ranging between 53° and 57° F. which very closely approximates the mean annual temperature of the stations noted.

Rainfall.—The rainfall was not excessive, although many cloudy and overcast days were noted. At no station in Northern California did the rainfall exceed three inches, while through the greater part of Southern California not over an inch was noted.

Signal Service.—The efficiency of the Signal Service Bureau on this Coast has been greatly augmented, not only by the increased facilities for receiving data from a larger area of country, but also in the daily issuance and distribution of maps with the weather bulletin. Formerly reports were received only from stations of the Pacific Coast and the country adjacent, but the field of observation has been so broadened as to include much territory east of the Sierra Nevada, consequently thermal waves which affect our climate secondarily can be better observed and their modifying influences predicted. This has rendered possible the announcement of approaching storms both more accurately and for a longer period in advance than was possible before this system was adopted. Care has also been taken to properly diffuse the knowledge thus gained. Beginning with April, 1891, maps on which both isotherms and isobars are lined, together with general and local forecasts, have been issued daily and are distributed wherever such information is desired. By this method not only the forecasts but also the barometric and other data on which they are based are clearly placed before all students of meteorology.

California—Tabular Statement for April, 1891.

STATIONS.		TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
		Mean.........	Highest.........	Lowest.........	Mean Highest.........	Mean Lowest.........	Mean Daily Range.........	No of Days Rain Fell......	Total Rainfall.........		No. of Clear Days.....	No. of Fair Days.........	No. of Cloudy Days.........	Prevailing Direction.	
Auburn	Cal.	----	----	----	----	----	----	----	----	----	----	----	----	----	Southern Pacific Co.
Berkeley.........	"	52.3	79.0	40.7	61.8	45.7	16.1	7	3.42	85.3	14	8	8	S.	Obs. Univ. of Cal.
Colfax...........	"	48.2	84.0	34.0	----	----	----	10	2.45	----	----	----	----	S.W.	Southern Pacific Co
Eureka...........	"	50.4	73.0	39.0	57.2	44.6	12.6	17	6.37	91.7	5	11	14	N.W.	Signal Service U.S.A.
Fresno...........	"	58.5	91.0	37.0	72.4	45.7	26.7	4	0.49	61.9	13	11	2	N.W.	" " "
Keeler.	"	57.0	84.0	32.0	68.9	46.0	22.8	3	0.10	36.3	15	10	5	S.	" " "
Los Angeles....	"	56.1	86.0	42.0	70.7	48.0	22.7	3	1.26	71.8	10	13	7	W.	" " "
Monterey	"	54.3	72.0	36.0	----	----	----	7	2.36	----	----	----	----	S.W.	Southern Pacific Co.
Napa........... ..	"	52.8	77.0	35.0	63.2	42.4	20.8	8	2.95	88.6	17	4	9	S.W.	Sta. Napa Ins. Asylum
Oakland	"	54.48	80.0	40.0	----	----	18.13	8	2.77	74.82	13	11	6	S.W.	Chabot Observatory.
Paso Robles....	"	63.3	88.0	38.0	----	----	----	3	1.92	----	----	----	----	S.	Southern Pacific Co.
Red Bluff.......	"	58.0	89.0	37.0	67.7	47.6	20.1	10	2.27	69.1	8	17	5	S.E.	Signal Service U.S.A.
Sacramento. ...	"	56.6	84.0	40.0	68.4	47.5	20.9	8	2.04	74.3	9	16	5	S.W.	" " "
San Diego.......	"	59.0	77.0	44.0	65.7	50.6	15.1	3	0.76	76.4	16	9	5	W.	" " "
San Francisco..	"	52.2	81.0	40.0	60.4	46.3	14.1	9	2.44	83.6	12	13	5	W.	" " "
Santa Barbara..	"	56.3	77.5	42.0	66.4	46.4	20.0	2	1.57	75.0	22	3	5	W.	Hugh D. Vail.
Santa Cruz......	"	55.0	73.0	39.0	----	----	----	6	2.88	----	----	----	----	W.	Southern Pacific Co.
Yuma...........	A. T.	69.6	102.0	44.0	85.5	53.9	31.6	0	0.00	34.0	26	3	1	W.	Signal Service U.S.A.

Blank (----) indicates data missing.

Occidental Medical Times.

JAMES H. PARKINSON, L. R. C. S. I., EDITOR.

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MR. WATSON CHEYNE has published his results obtained with tuberculin in diseases of a tubercular and in some of a non-tubercular character. The total number of cases reported is 67, and comprises all that he has treated up to April, 1891. MR. CHEYNE is well known as a competent bacteriologist and careful investigator, and the following summary of his results is therefore of considerable value in arriving at some conclusion upon this important therapeutic question:

Lupus.—There were 10 cases of lupus under treatment, of which 2 have only been going on for too short a time to be of value; both are steadily improving. I may say that in all the remaining 8 cases improvement occurred at first, and in some it was very considerable; in 1, indeed, there is now hardly any disease to be detected. In 4 of the 8 cases the improvement is maintained or increasing. In 1 when the patient was last seen the improvement had come to a standstill, although there was still a good deal or lupus tissue present. In 3, after the improvement had gone on to a considerable extent, it came to a standstill, and now shows a distinct tendency to relapse, but in none is the disease nearly so bad as before the treatment was commenced. The greatest improvement was obtained in a case treated by the "continuous" plan, and is very interesting as showing the very remarkable improvement after two severe reactions (the temperature reaching 104.4° F. 16 hours after the first, and 104.8° F. 31 hours after the second injection); but recurrence after leaving off the treatment; this improvement affecting not only the lupus, but also a diseased condition of a metacarpal bone which was present.

Diseases of Bones and Joints—We had 12 cases of disease of the larger joints with unbroken skin which were treated by Koch's method in the first instance, and of these 2 have apparently com-

California—Tabular Statement for April, 1891.

STATIONS.		TEMPERATURE.						RAINFALL.		Mean Relative Humidity	WEATHER.			WIND.	FURNISHED BY—
		Mean........	Highest........	Lowest........	Mean Highest........	Mean Lowest........	Mean Daily Range........	No of Days Rain Fell......	Total Rainfall........		No. of Clear Days........	No. of Fair Days........	No. of Cloudy Days........	Prevailing Direction.	
Auburn	Cal.	------	------	------	------	------	------	----	------	------	----	----	----	------	Southern Pacific Co.
Berkeley........	"	52.3	79.0	40.7	61.8	45.7	16 1	7	3.42	85.3	14	8	8	S.	Obs. Univ. of Cal.
Colfax...........	"	48.2	84.0	34.0	------	------	------	10	2.45	------	----	----	----	S.W.	Southern Pacific Co
Eureka..........	"	50.4	73.0	39.0	57.2	44.6	12.6	17	6.37	91.7	5	11	14	N.W.	Signal Service U.S.A.
Fresno..........	"	58.5	91.0	37.0	72.4	45.7	26.7	4	0.49	61.9	13	11	2	N.W.	" " "
Keeler.	"	57.0	84.0	32.0	68.9	46.0	22.8	3	0.10	36.3	15	10	5	S.	" " "
Los Angeles....	"	56.1	86.0	42.0	70.7	48.0	22.7	3	1.26	71.8	10	13	7	W.	" " "
Monterey	"	54.3	72.0	36.0	------	------	------	7	2.36	------	----	----	----	S.W.	Southern Pacific Co.
Napa..........	"	52.8	77.0	35.0	63.2	42.4	20.8	8	2.95	88.6	17	4	9	S.W.	Sta. Napa Ins. Asylum
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Paso Robles....	"	63.3	88.0	38.0	------	------	------	3	1.92	------	----	----	----	S.	Southern Pacific Co.
Red Bluff.......	"	58.0	89.0	37.0	67.7	47.6	20.1	10	2.27	69.1	8	17	5	S.E.	Signal Service U.S.A.
Sacramento. ...	"	56.6	84.0	40 0	68.4	47 5	20.9	8	2.04	74.3	9	16	5	S.W.	" " "
San Diego.......	"	59.0	77.0	44 0	65.7	50.6	15 1	3	0 76	76.4	16	9	5	W.	" " "
San Francisco..	"	52.2	81.0	40.0	60.4	46.3	14.1	9	2.44	83.6	12	13	5	W.	" " "
Santa Barbara..	"	56.3	77.5	42.0	66.4	46.4	20.0	2	1.57	75.0	22	3	5	W.	Hugh D. Vail.
Santa Cruz......	"	55.0	73.0	39.0	------	------	------	6	2.88	------	----	----	----	W.	Southern Pacific Co.
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Lupus.—There were 10 cases of lupus under treatment, of which 2 have only been going on for too short a time to be of value; both are steadily improving. I may say that in all the remaining 8 cases improvement occurred at first, and in some it was very considerable; in 1, indeed, there is now hardly any disease to be detected. In 4 of the 8 cases the improvement is maintained or increasing. In 1 when the patient was last seen the improvement had come to a standstill, although there was still a good deal or lupus tissue present. In 3, after the improvement had gone on to a considerable extent, it came to a standstill, and now shows a distinct tendency to relapse, but in none is the disease nearly so bad as before the treatment was commenced. The greatest improvement was obtained in a case treated by the "continuous" plan, and is very interesting as showing the very remarkable improvement after two severe reactions (the temperature reaching 104.4° F. 16 hours after the first, and 104.8° F. 31 hours after the second injection); but recurrence after leaving off the treatment; this improvement affecting not only the lupus, but also a diseased condition of a metacarpal bone which was present.

Diseases of Bones and Joints—We had 12 cases of disease of the larger joints with unbroken skin which were treated by Koch's method in the first instance, and of these 2 have apparently completely recovered; how far this recovery will be permanent time alone will show. The remaining 10 required operation; of these 7 would have been operated on, at or soon after admission, before the Koch period, leaving 3 in which the conditions, which determined operation, appeared during treatment. In 1 of these 3 cases the determining cause of the operation was the occurrence of dislocation, but I cannot say that operation was absolutely essential in this instance; in another the determining cause was cessation of improvement, and here alone the operation at that time was probably not essential, though I have no doubt that it would have ultimately been required (I operated in these cases under the impression conveyed by Koch's paper that the tubercular material would be found broken down and easily removable, and that in this way operation would expedite the cure); in the third case operation was rendered necessary by the occurrence of suppuration, Of the operations performed, excision was done in 1 case; the scar has here partially broken down. Complete arthrectomy was done in two instances, and it is as yet too early to say whether or not there will be recurrence. Partial arthrectomy (*i. e.* partial removal of the affected tissue) was performed in 7 cases, and of these 3 remain healed, and recurrence has taken place in 4; of these 4 cases 2 are now improving again as regards the local condition, and the other 2 have broken down quite recently; in 2 cases the rapid recurrence was no doubt to some extent my fault, because I did not take pains to remove all the loose tubercular material from the joint, being then under the influence of the view that the tuberculin caused caseation of the tubercular tissue and that, therefore, it would be readily removed by scraping and irrigation. It is worthy of note that in the case in which the partial arthrectomy has given the most promising result the operation was performed after 6 injections had been given, that is to say, the Koch treatment followed rather than preceded the operative interference. In 1 case of acute spinal disease all symptoms disappeared in a few weeks, but here absolute rest was also employed. In 2 cases of dactylitis I cannot say that any advantage was derived from the treatment as regards the fingers. In one case, however, a sinus which had remained open for a year healed almost at once, and the enlarged glands in the neck diminished in size; and it is very interesting to note that soon after the treatment was stopped recurrence took place in these parts (this recurrence being, however, apparently only temporary), as if the use of the fluid had been keeping the disease in chec.

We had 6 cases where there were *aseptic* sinuses in connection with disease of bone and joints. Of these, 1 has only been under treatment for a very short time. Of the remaining five, 2 have completely and apparently soundly healed, and have so far derived the greatest advantage from the treatment; while 1 is almost absolutely healed, and I think will be found quite healed when the dressing is next changed. In 1 case healing is not yet complete, but the condition is steadily improving, and the bare bone which was present in the first instance can no longer be felt. In 1 case, so far as the bone is concerned, no marked benefit has been derived, though bare bone felt at first has now disappeared; in this instance the delay in healing is, I think, due to the conditions of the sinus itself rather than to the presence of tubercular disease. In this patient a tubercular sore on the hand healed under treatment, but has relapsed to some extent since the treatment was discontinued. Of these 6 cases only two now remain unhealed. There were 6 cases of diseases of bones and joints with *septic* sinuses. Of these 4 cannot be said to have derived any benefit; 1 undoubtedly has, and 1 is healing after operation, and possibly the separation of the sequestrum has been expedited by the treatment. In 1 case it is interesting to note that the tubercular deposit where the skin was unbroken improved under treatment, but that those with septic sinuses did not; indeed, in 1 the joint became worse. In one case (already alluded to), where there were septic sinuses in connection with a metacarpal bone, the condition improved markedly under treatment, having healed in the first instance.

Diseases of Glands.—In 7 of the cases no perceptible difference is apparent in the size of the glands; in 4 it is noticed that they were somewhat smaller; in 1 the glands were looser but not smaller; and in 1 they became smaller under treatment, but 1 or 2 of them enlarged after the treatment was stopped. In 5 cases the enlargement of the glands was the principal or only apparent affection, and in 3 of these there was no external communication. In all 3 the glands diminished somewhat in size, and in 1 where they were at first much matted together the periadenitis disappeared in a very striking manner. Of 2 cases where there were sinuses in connection with the glands, in one no noticeable effect was produced, while in the other, whatever may have happened to the glands themselves, the septic suppuration spread in the neighboring tissues to a very serious extent.

Phthisis.—There were 9 cases of phthisis, of which 2 were hope-less from the first, and in which no change was noted in the lungs during the short injection period. Of the remaining 7 cases all improved in general condition, some of them very markedly so; as regards local condition in 1, it is said to be the same as at first, while in the others there has been improvement, varying from "slight" to "very remarkable." To these we must add 1 case improved and 1 *in statu quo*.

Leprosy.—[This case is given in detail as being of special interest.] S. M——, æt. 54, female, born in Germany. Was a nurse in Calcutta for 27 years, and had cases of leprosy under her care. Came to England 10 years ago. The disease began in 1880 with pain and stiffness in joints and a macular rash over abdomen; shooting pains in limbs. Shortly afterwards the body was covered with dark red, raised, painless, blotches, first noticed about the head, each lasting for a year to a year and a half. In 1881 hands and feet swelled, pieces of bone came from ends of fingers and toes, and nails dropped off. At the same time she complained of numbness and feeling of weight in limbs. Deformity of the fingers has come on since, but for the last 7 years the disease has been practically quiescent. In September last first complained of photophobia, lachrymation and pain in the right eye. Diagnosis—Anesthetic leprosy. Condition before injection: Internal organs apparently healthy. Anesthesia not complete anywhere, but sensation is very imperfect as high as the middle of the legs and forearms, and somewhat impaired higher up. Pain on pressure of calves especially on right side, no definite enlargement of nerves; possibly the right ulnar behind the internal condyle is a little thicker than the left. Fingers flexed into palm; cannot be extended; cannot oppose thumb. No anesthetic patches over body.

Injections commenced Dec. 10th, 1890; discontinued on Feb. 18th, 1891; length of treatment, 70 days; total number of injections, 27; total amount of fluid used, 1.156 gm. The first reaction was severe, the chief symptoms being rigor, vomiting and oppression of breathing. There were shooting pains in arms and legs, a large vesicle formed on the inner side of the left great toe, and there was swelling of the left fore and middle finger. Next day a macular rash in the form of a line was seen on the lower folds of the mammæ meeting in the centre. Another line across the upper part of the abdomen and a semi-circular patch below and on the right of the ensiform cartilage. There was also another line at the posterior edge of the right buttock. After the third injection the patient was collapsed in the evening, when the temperature 6 hours after the injection was 97°, pulse 44, and respirations 40, and very shallow. The symptoms subsided as the temperature rose; the highest temperature was 103°. Fresh bullæ appeared on the left leg and on the right heel and ankle. There was no further trouble, the rash faded between each injection and came out again during the reactions; it had not entirely disappeared when she left the hospital. After the sixteenth injection patient asserted that she could open her hand better than before the treatment, and that she herself felt better; the anesthesia was somewhat less marked, When she left the hospital she still asserted that she was better in these respects. Condition when last seen; April 4th, 1891; before she was injected she suffered with pains in the extremities every month, lasting from 4 to 5 days. These pains have not since reappeared. The anesthesia of the arms existed up to the junction of the middle and upper third of radius, whereas it now does not reach higher than about the middle of the metacarpal bones; about the same may be said of the lower extremities. She has increased in weight, and this cannot be attributed to an extra diet. She complains that she has not been able to get her breath so well since the injections; she has had one or two slight fainting fits. On the whole, she has greatly improved, and the patient herself attaches great importance to the relief of the periodic pains.

Non-tubercular Cases.—E. S., æt. 23, female, was admitted on account of a little pain in her knee. This disappeared in a few days with massage. One centigramme was injected, and to our surprise there was considerable general reaction, the temperature reaching 103.4°, 27 hours after the injection. There was no reaction in the knee at all, but the patient showed us 2 scars on the right arm which had resulted from chronic abscesses, and which had reacted. She told us that they were not quite well before the injection, but they gave her no trouble, and she had forgotten to mention them. J. D., æt. 31. A case of typical lupus erythematosus, did not react after 1 centigramme. J. F., æt. 15 months. Syphilitic epiphysitis of lower end of tibia, did not react after 2 milligrammes. A case of syphilitic disease of the nose, palate, pharynx, etc., in a boy, did not react after 2 milligrammes, but after 1 centigramme there was a general febrile reaction (temperature above 102°), but no local reaction whatever. A. B., female, æt. 49, was admitted with a scar at the left angle of the mouth with several ulcerating patches on it. Patient had suffered from ulceration here for 23 years, and a great variety of diagnoses have been made, among others that of lupus. It seemed most probably a case of rodent ulcer, but a series of injections were given, commencing with .002 grammes. She had general febrile reactions, not severe, after the first six injections, but we never could satisfy ourselves as to any local reaction. Not the slightest alteration occurred in the disease during the treatment. W., a nurse under the care of Dr. Greville MacDonald, with masses of soft tissue in both nostrils, as to the nature of which many diverse opinions have been expressed by those who have made clinical or microscopical examinations, some thinking that it must be some form of tubercular disease. In her case a number of injections were given, beginning with .002 and going as high as .3, and towards the end of the treatment the part was scraped from time to time. There were distinct febrile reactions from the first, and the patient said that there was increase in the nasal discharge, but the local reaction was never very definite. Whether the improvement which followed the treatment was entirely due to the scraping, or to it and the tuberculin combined, and whether the disease was tubercular or not, are points which are not yet clear. For my own part, I have always been sceptical of its tubercular nature, and I cannot find any evidence of tubercle in the portions which I have examined microscopically.

It will be seen from this summary that MR. CHEYNE, while ready to accord the new method all that it may have possibly accomplished, is very far from believing implicitly in its curative properties. It is still too early to give positive or final opinions on the value of tuberculin, but a wider experience continues to prove that its application must be limited to selected cases, and that even then its curative results are neither certain nor free from possible intercurrent dangers.

NOTES.

Dr. A. W. Saxe.

As we go to press we learn with regret of the death of Dr. A. W. Saxe, of Santa Clara, one of the best known and most widely respected of the older practitioners.

Board of Examiners, Medical Society State of California.

The new Board of Examiners has organized by electing Martin

Regensberger, President, and Chas. C. Wadsworth, Secretary. The office of the Board is at 606 Sutter street, San Francisco.

Unwarranted Publication of the Proceedings of the Society.

In the May number of the *Pacific Medical Journal* the reports of the Chairmen of several of the Committees presented at the last meeting of the State Society are published *verbatim.* This action, under a strict construction of Section 3, Article IV, of the By-laws, would debar several valuable papers from being published in the Transactions and would compel the Chairman of the Committee on Publication to reject his own report. It can hardly be supposed that our contemporary whose editor, himself a member of the Society, and on other occasions a member of the Committee on Publication, could have been ignorant of a well-known by-law, and we do not care to accept the alternative. It is, however, a fact that this is not the first occasion upon which the *Pacific Medical Journal* has defied the rules of the Society. It is quite evident that the members who have been victimized in this business are innocent of wrong-doing, as copies of the different reports were furnished to THE MEDICAL TIMES in good faith, and we have no reason to suppose that any further action was taken in the case of our contemporary.

Committees of the State Medical Society.

The following are the Standing Committees of the Medical Society of the State of California, for 1891—1892.

Committee on Clinical Medicine, including Diagnostics and Therapeutics—J. H. Utley, Chairman, Los Angeles; W. G. Cochran, Los Angeles; J. P. LeFevre, San Diego; [1]A. W. Saxe, Santa Clara; H. M. Pond, St. Helena.

Surgery and Clinical Surgery—W. LeMoyne Wills, Los Angeles, Chairman; E. H. Woolsey, Oakland; W. J. G. Dawson, St. Helena; G. W. Lasher, Los Angeles; D. G. MacGowan, Los Angeles.

Pathology aud Pathological Anatomy—D. C. Barber, Los Angeles, Chairman; Thomas Phillips, Stockton; F. H. Payne, Berkeley; T. W. Haylett, San Bernardino; W. R. Cluness, Jr., Sacramento.

Diseases of the Mind and Nervous System—A. M. Gardner, Napa, Chairman; F. W. Hatch, Agnews; H. N. Rucker, Stockton; W. J. Wilcox, Oakland; G. B. Richmond, Salinas.

Medical and Surgical Diseases of Children—A. H. Pratt, Oakland, Chairman; D. B. Van Slyck, Pasadena; L. M. F. Wanzer, San Francisco; E. A. Follansbee, Los Angeles; May C. E. Gydison, Salinas.

State Medicine and Hygiene, and Adulteration of Foods and Drugs—Thomas Ross, Woodland, Chairman; G. G. Tyrrell, Sacramento; M. M. Chipman, San Jose; Elmer E. Stone, Marysville; Jas P. Booth, Needles.

Gynecology—W. A. Briggs, Sacramento, Chairman; J. R. Todd, Gridley; A. L. Lilieucrantz, Oakland; C. A. Buckel, Oakland; W. F. Jones, San Rafael.

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[1] Deceased.

Obstetrics and the Puerperal Diseases—G. P. Reynolds, Alameda, Chairman; James F. Sullivan, San Francisco; G. W. Westlake, Red Bluff; J. F. Boyce, Santa Rosa; T. Kelley, San Jose.

Histology and Microscopy—A. W. Hoisholt, Stockton, Chairman; G. C. Simmons, Sacramento; T. A. Davis, San Diego; Charles Anderson, Santa Barbara.

Indigenous Botany, Materia Medica and Medical Chemistry—W. P. Gibbons, Alameda, Chairman; H. S. Orme, Los Angeles; T. B. De Witt, Antioch; G. Walter Otto, Santa Barbara; Anabel McG. Stuart, Santa Rosa.

Medical Topography, Meteorology, Endemics and Epidemics—J. P. Widney, Los Angeles, Chairman; H. D. Robertson, Yreka; Alexander de Barra, Murietta; R. P. Van Orden, Oakland; R. S. Markell, Cloverdale.

Necrology—J. C. Sundberg, San Francisco; David Powell, Marysville; J. A. Crane, Santa Ana; B. A. Plant, Santa Cruz; L. H. Patty, Petaluma.

Dermatology and Venereal Diseases—J. G. Bucknall, San Francisco, Chairman; R. E. P. Gober, Los Gatos; W. D. Anderson, Vallejo; J. M. Forrest, Alturas.

Prize Essay—H. H. Hart, San Francisco, Chairman; W. E. Bates, Davisville; H. Bert Ellis, Los Angeles; E. W. Davis, San Francisco; L. C. Frisbie, Vallejo.

Ophthalmology and Otology—A F. Darling, Los Angeles, Chairman; W. D. Babcock, Los Angeles; R. Pischl, San Francisco.

Laryngology and Rhinology—T. F. Rumbold, San Francisco, Chairman; A. C. Rogers, Los Angeles; W. E. Briggs, Sacramento; E. R. C. Sargent, San Francisco; H. L. Wagner, San Francisco.

Medical Jurisprudence—J. P. Boyd, Santa Ana, Chairman; W. W. Macfarlane, Davisville; H. H. Clark, Santa Cruz; J. S. Sargent, Santa Rosa; C. A. Ruggles, Stockton.

Medical Education and Medical Legislation—A. P. Whittell, San Francisco, Chairman; L. P. Tooley, Willows; A. Fine, Oakland; L. R. Webster, Oakland; Obed Harvey, Galt.

Anatomy and Physiology—J. H. Barbat, San Francisco, Chairman; E. R. Merrill, Sacramento; C. E. Farnum, San Francisco; H. Nadeau, Los Angeles; C. F. Taggart, Tulare.

Executive Committee—R. H. Plummer, San Francisco, Chairman; J. H. Parkinson, Sacramento; C. G. Kenyon, San Francisco.

Publication—Geo. F. Shiels, San Francisco, Chairman; Albert Abrams, San Francisco; E. S. Merritt, San Francisco; W. E. Hopkins, San Francisco; Wm. Watt Kerr, San Francisco.

Arrangements—Wm. Watt Kerr, San Francisco, Chairman; Jas. Simpson, San Francisco; P. H. Bailhache, San Francisco; L. W. Merritt, San Francisco; M. Regensburger, San Francisco.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, April 14, 1891.

The President, J. H. PARKINSON, in the Chair.

New Member.—F. R. WAGGONER, M. D., was duly elected a member of the Society.

The Treatment of Consumption by Koch's Method.—DR. A. E. BRUNE read a paper upon this subject, reporting some cases in his own practice and in that of other physicians in the city in which tuberculin had been employed. His experience had been too limited to justify him in giving an opinion. The results, on the whole, had not been very favorable, yet he believed the remedy was a very valuable one, and that a great therapeutic advance had been made.

DR. G. L. SIMMONS could not agree with the author in his opinion of the efficacy of tuberculin. He had at first hoped that the remedy would prove a great success, but he now believed that it would occupy a secondary place in relation to some older methods. The latest reports had shown a lack of unanimity in the opinions as to its efficacy. It introduced a dangerous animal poison into the system, and already in Vienna and in other medical centres there was a great feeling of doubt. Even in lupus, the old practice of scraping out the diseased tissue would appear to be the best plan. He doubted the propriety of trying tuberculin, and prophesied that in a year's time very few would be using it.

DR. W. A. BRIGGS thought that all were agreed it was early to express a positive opinion on the subject. He was not prepared to use the lymph himself, and felt that we could afford to wait. In advanced cases it appeared to be useless, if not positively injurious. Koch says it is a product of vital action of tubercular matter, and that we can expect a cure only in a few cases where we can obtain a total necrosis of the tubercular tissue and its rapid expulsion In pulmonary tuberculosis we rarely have a rapid expulsion of necrotic tissue, and there is therefore a liability of reinfection of the system.

DR. W. R. CLUNESS did not believe that tuberculin would be a cure in every case, and though at first much impressed with its value, he had very little hope of substantial benefits from its use. In certain forms of tuberculosis it might be of benefit, but its use was certainly limited. When the disease affected the peritoneum or the meninges of the brain, it was certainly dangerous; in fact, there was considerable difficulty in distinguishing between the dangerous and non-dangerous cases. In joint troubles and lupus it might be beneficial.

DR. E R. MERRILL—If tuberculin does not destroy the bacilli, it cannot be claimed to be an entirely new idea. Sixteen years ago Ranvier claimed that the poison irritated the tissues, causing a proliferation of cells; the treatment, therefore, was rational. Tuberculin is a powerful poison, strongly affecting the nervous system. It circulates through the tuberculous tissue and sets up hyperemia. The last nerve cells formed are thin and easily affected, and in children it was therefore rational that the remedy should not be used.

DR. T. W. HUNTINGTON said that he had tried tuberculin in three cases of pulmonary tuberculosis, all of which were well advanced. It appeared to have a specific action, as in all, treatment was followed by elevation of temperature and increased expectoration. In one case there were hemorrhages lasting several days. In another, peritoneal complications that seemed to affect the bladder. He would only use the remedy if patients specially requested it.

Dr. G. A. White had obtained a supply of tuberculin, but had not used it at the County Hospital. Its employment seemed to be attended with as much danger as benefit and it should be used only by specialists thoroughly acquainted with its management. The general practitioner was not qualified to use it.

Dr. J. R. Laine said that if a disease that is due to parental impressions can be affected by tuberculin, we should commence treatment on the previous generation.

Dr. W. E. Briggs believed that the only cases in which tuberculin would be of benefit were those in which the necrotic material could be thrown off. It was therefore applicable in laryngeal tuberculosis, and he had most hopes from it in that affection.

Dr. Brune, in replying, said that Koch had stated the bacilli were not affected. In lupus and laryngeal phthisis, as well as early cases of lung trouble, it was of value. It has heretofore been claimed that there are two varieties of lupus, the erythematous and the tubercular. Tuberculin had proved the truth of this view, as it affected the tubercular variety, but did not act upon the erythematous.

SAN FRANCISCO COUNTY MEDICAL SOCIETY

Regular Meeting, April 14, 1891.

The President, A. P. Whittell, M. D., in the Chair.

New Member.—Marion Thrasher, M. D., was duly elected a member of the Society.

Lukemia.—Dr. J. D. Rosenstirn introduced the subject of Lukemia for discussion, giving a history of the earliest recognition of the disease and of its accepted pathology. The symptoms, the diagnosis by microscopical examination of the blood and the failure of therapeutic measures were reviewed. Arsenic was mentioned as a remedy that had failed, and surgical measures were condemned. He presented a patient who some years ago, when at Bakersfield, had contracted malaria, and subsequently, even when residing in San Francisco, had occasional attacks of ague. He was otherwise well until about three years ago, when he began to suffer from dyspnea and faintness upon exertion. There was left hydrothorax, persistent diarrhea, anasarca of the feet and limbs and an enormous enlargement of the spleen. The pleura was tapped and the diarrhea was checked by codeine, and under large doses of iron and arsenic he recovered. Subsequently, upon violent exertion, a fresh attack of dyspnea occurred, which lasted four weeks. During this time the spleen was acutely enlarged and an apoplexy probably occurred; the subsequent anemia being the cause of the other symptoms. The dyspnea finally yielded to inhalations of oxygen. The patient was exhibited to demonstrate the enormous size of the spleen, which measured 36 cm. in length. Specimens of the blood were also shown under the microscope. The preparation of iron employed was the carbonate, and of arsenic the arseniate of iron.

Dr. G. W. Davis said that while he was in Sacramento he was in the habit of administering arsenic and iron to children with enlarged spleens and lymphatic glands. He pushed the arsenic until the physiological effects were produced. He had cured a girl of 18 who had lukemia.

Dr. K. Pischl mentioned the retinal changes, especially hemorrhages, haziness of the disk, pallor of the fundus. The hemorrhages usually take place only at the retinal border. The case before the Society had not exhibited hemorrhages, only a pale disk and small arteries.

Dr. A. Abrams alluded to the leucocytosis of malaria, a temporary condition. It would have been interesting in this case to have demonstrated the presence or absence of the plasmodium in the blood. He remembered the spleen of a subject at the Cooper Medical College that weighed 17 lbs. He had tried oxygen in lukemia, but without any effect. He enquired whether the red corpuscles were diminished. The proportion of 1:50 was not distinctive of lukemia but might be present in leucocytosis; the distinction lies in the permanency of the condition. He had searched for the plasmodium, and believed that he had found it.

Dr. M. Krotoszyner said that plasmodia are only found in typical exacerbations of malaria, and therefore Dr. Rosenstirn could not have discovered them. He enquired whether parenchymatous injections of arsenic into the spleen had been employed.

Dr. F. B. Carpenter enquired whether in these cases the capsule of the spleen was sufficiently thickened from its normal thin and delicate condition to withstand the force of apoplexy. He had never seen a splenic apoplexy.

Dr. Rosenstirn, in replying, said that there were cases of malaria with large spleens and glands but *no* increase in the white blood corpuscles. To this class Dr. Davis' case may have belonged. He said that out of 124 well developed and recognized cases 8 per cent. furnished a history of malaria. He admitted the condition of leucocytosis, but it never produced the proportion of 1 white to 50 red blood corpuscles. This ratio was indicative of lukemia. In this case he had not counted the red corpuscles. He had not searched for the plasmodium, as he thought this was only present in the exacerbation. He had not employed parenchymatous injections, fearing another hemorrhage. The capsule of the spleen was thickened and infarcts were certainly not uncommon.

SAN FRANCISCO MEDICAL BENEVOLENT SOCIETY.

Regular Meeting, March 21, 1891.

The Acting President in the Chair.

Dr. J. F. Morse read a paper on "Cholecystotomy," with a report of a successful case (published at p. 307).

Dr. G. F. Shiels: Dr. Morse has been peculiarly fortunate in liver surgery, and this operation demonstrates beyond the possibility of a doubt that it is one that is justifiable. This, of course, is an almost typical case; but there are certain peculiarities in the behavior of gall-stones which are worthy of notice. I would like to mention another case upon which Dr. Morse operated some time ago. The woman was a former patient of mine. I cut down twice upon the eighth rib and removed a portion of it, the patient doing well; but there remained behind a fiistulous opening, and as her surroundings were unfavorable, and as I was not connected with a hospital, I sent her to Dr. Morse and was present at the operation. I believe he was under the impression that it was a case of caries of the ribs. After removing portions of the eighth and ninth rib, which were carious, he discovered a fistulous opening leading into the cavity. He incised this fistula to its end, and suddenly said that he thought there was a foreign body, perhaps a bullet, at its bottom. This body could be seen to revolve at each respiratory action. Upon removal it proved to be a large gall-stone. It is peculiar how it got into that position. It probably worked its way through the gall-bladder. The result was perfectly satisfactory.

Dr. Morse said that before the operation the patient had marked intestinal disturbance—diarrhea and the customary colorless stools, flatus, pain, etc. She was delirious at times, very emaciated, and in a bad condition from every point of view. She was also extremely jaundiced. This has now all disappeared. Her appetite has entirely returned, and she is about, doing anything she pleases. During the last few years cholecystotomy has been very frequently performed. A French physician has reported forty successful cases. Where there was a possibility of making a diagnosis, and in those cases where symptoms of disturbance were present, an operation was justifiable. We frequently find such a condition at the primary stage in the formation of abscesses or suppuration of the gall-bladder. The methods of operation are various. Some believe in the single procedure of cutting down and stitching the gall-bladder to the abdominal walls at once, while others believe in two stages, cutting down and then incising. It is far less dangerous, but at the same time it is a very uncertain procedure, because it is very hard to be certain that any particular portion of the peritoneum may be found to press upon the gall-bladder sufficiently to form an adhesion unless it is stitched and held in place, although many cases are reported in which it was successful. The question always arises, is it advisable to perform cholecystotomy or cholecystectomy. Tait and Leboeuf had a long and heated argument upon the two methods, the latter holding that in all cases cholecystectomy should be performed. Tait dwelt upon the various dangers of hemorrhage. Leboeuf replied that it was a very easy matter to separate the bladder from the base of the liver, and that the hemorrhage could be controlled, even if the vessels were torn, by simple pressure.

PLACER COUNTY MEDICAL SOCIETY.

Regular Meeting held at Auburn, April 7, 1891.

The President, JOSEPH FLINT, M. D., in the Chair.

The Society was organized June 7, 1889, and in the following October adopted a Constitution and By-Laws and fee-bill. It has accomplished good work in the ranks of the local profession.

Embolism of the Popliteal Artery following Diphtheria and Necessitating Amputation.—DR. R. F. ROONEY read a paper upon this subject and reported the case.

SPECIAL CORRESPONDENCE.

GERMANY.

[FROM OUR OWN CORRESPONDENT.]

Tuberculin.—Liebreich's Treatment of Tuberculosis.—Diagnosis of Insanity.—An Effective Hypodermic Syringe.—Contamination of Milk by Bovine Excreta.—Olive Oil in the Treatment of Gall-stones.

The intense enthusiasm aroused by the first publications of Koch's discovery has considerably abated since my last letter, and the whole subject is now being discussed more calmly. It must be confessed that the exaggerated expectations with which the first announcements were received by some, or even many, physicians have not been fulfilled. Nor could it, on mature consideration, have been presumed that they would. A reaction was inevitable. The remedy must have been simply miraculous to do all that was expected of it. Patients in the last stages of pulmonary and laryngeal tuberculosis flocked to Berlin to try the injections as a last resort after all other treatment had proved futile. Naturally, failures have been numerous and greatly in excess of the successful cases reported, for all conscientious observers will, of course, hesitate to proclaim any cases cured unless a considerable length of time has shown the patients to have been really benefitted by the treatment. We have now arrived at a stage where steady work and prolonged observation are preparing the field from which we may hope to derive real and permanent benefit.

Even if the disease be not yet entirely stamped out by this treatment, the number of victims annually carried off by consumption and its allies will at any rate be considerably diminished. Too many notable physicians have shown that tuberculin is really possessed of very active properties to doubt that, when properly handled, it is a most valuable adjunct to our therapeutic measures in the treatment of this disease. At the last meeting of German naturalists and physicians at Bremen, Professor Ebstein remarked that it has been shown by necropsies that the number of cadavers presenting evidence of healed tubercular lesions (death having ensued from other illnesses) is quite as large as the number of persons dying of the malady. Possibly, this assertion will not be unreservedly accepted, but it has been clearly proved that a great many persons do recover from tuberculosis, as any one who has had an opportunity of observing a sufficient number of autopsies will at once agree. Besides, clinical proofs have not been wanting. It will suffice to refer to the labors of Dr. Brehmer, of Goerbersdorf, and others who have worked on the same subject. The value of Koch's lymph is therefore evident in aiding us to detect tuberculosis when at a stage in which a cure may, comparatively speaking, be easily achieved. We must remember that Koch claimed for his fluid the power only of demonstrating tuberculosis without destroying the bacilli, and of producing a transmutation of the invaded tissues. We should not therefore be discouraged by the number of failures already reported, but, on the contrary, it is now the duty of all who are in a position to carry out experimental studies to test the remedy, defining its applicability, excluding all cases not adapted for treatment, and extending its aid to as many as can really be benefitted. In this manner the reflux of enthusiasm will be safely withstood, and the remedy, which, by indiscriminate use, appears to be of doubtful efficacy, will be better understood and more certainly applied in future.

Of Professor Liebreich's recommendation of cantharidinate of potassium we must say about the same. The demonstration before the Berlin Medical Society certainly arouses great expectations, the results exhibited being very remarkable. The procedure is rendered plausible by theoretical deductions (the destructive action of serum on the microbes), and the possibility of its being successfully applied is undeniable. Under these circumstances it sounds almost strange to hear the opinion expressed by Dr. Gabrylowiez and defended by him in an elaborate and able essay that "a specific remedy for tuberculosis in the shape of a drug does not as yet exist, and never will." Although he may be right, still it is certain that we now have remedies which are much more efficacious than those of our forefathers, and we may confidently expect still further improvements.

A singular controversy, which caused much comment in Berlin, arose a little while ago with regard to the mental condition of a man named Hermann who had escaped from a lunatic asylum in Austria, where he had been placed by his friends. The patient in question had formerly been a cavalry officer in the Austrian army, and was a man of some talent, and had frequently written very lively and taking *feuilleton* articles for periodicals. Having, however, committed a number of extravagances exceeding all limits, which clearly proved him to be laboring under a mental disturbance, he was declared by the magistrates to be *non compos mentis* and removed to an asylum. After causing a great deal of trouble to his keepers, he managed to make his escape and proceeded to Germany. Asserting that he had been unjustly detained, and that he was perfectly sane, he requested Professor Eulenburg, of Berlin, the well-known neurologist and alienist, to examine him and give him a testimonial as to his mental condition. Although it was during vacation, when the professor was absent from home, he consented to do so, and after having observed the man for a few days he came to the conclusion that he was in a perfectly sound state of mind, although he had been guilty of much folly and indiscretion; Professor Eulenburg accordingly testified to this effect, making at the same time some reflections on the culpability of the Austrian experts in arriving at so important a diagnosis as insanity without a sufficiently careful investigation of the case. Hermann no sooner had this document in his possession than he at once proceeded to publish a pamphlet describing his former physicians as venal hirelings, and himself as a deeply injured victim, giving strength to his assertions by the certificate of Eulenburg, which was printed at the head of his brochure. Now, it appears from the report of the case published by Dr. Hinterstoisser, that the man really was, and evidently is still insane, his conduct on several previous occasions and a number of circumstances known to the Austrian physicians under whose care he had formerly been, but which had been concealed from Professer Eulenburg, amply proved the man to be mentally unsound. Of course, without being cognizant of these circumstances, it was perfectly impossible to arrive at a correct diagnosis. It was expected at first that Prof. Eulenburg would reply in defense, but I have not heard of his having done so. The whole affair is much to be regretted, but the lesson it teaches, although severe, is too useful to be passed by entirely in silence.

Every physician has experienced the inconvenience arising from the piston of his Pravaz syringe becoming dry and losing contact with the walls of the glass cylinder. A number of "improved" syringes have been invented, all more or less successful, and more or less costly. A little device that I learned the other day seems worth describing, for although apparently a matter of minor importance, very unpleasant delay and discredit to the practitioner is apt to be caused by a syringe being out of order. It consists in drawing a ring of soft India-rubber, cut from a suitable size of unused drainage tube, over the top ring of the syringe, *i. e.*, the thickest part of the cylinder. The syringe is then inserted, point foremost, into a narrow bottle or a glass tube closed at one end, containing a 5 per cent. solution of carbolic acid, the aperture of the vial becoming occluded by the rubber ring. Then the handle of the syringe is drawn out a little so as to allow the disinfectant solution to enter the cylinder and come in contact with the piston. In this way the syringe is kept continually ready for use, always air-tight and always disinfected.

A rather unpleasant discovery has recently been made by Professor Renk, of Halle, with regard to the quality of the milk supply of that town, and of Berlin, Leipzic and Munich. Having observed that the milk brought for daily consumption to his house always contained a dark colored sediment, he examined it with the aid of the microscope and found that this foreign substance was nothing else than a quantity of bovine excreta. Evidently the udders of the cows had been in a state of uncleanliness, and the particles had been removed by the friction of the act of milking. As this contamination was found to be rather considerable, amounting in one case to as much as 0.325 grammes in a litre of milk, Prof. Renk prosecuted his observations, and found that Halle was worse off in this respect than the other large towns named, and that in certain dairies (especially where turf was used as a litter for the cows instead of straw) the pollution was worse than in others. In the Berlin milk-market, where inspections by the police is very rigidly carried out, the sediment was vastly less than in Halle and in Leipzic, where perhaps less strictness prevails. But even a small quantity of such a sediment is not an agreeable addition, and we shall do well to examine our milk in this respect, especially when designed for the use of infants, and particularly if they present symptoms of indigestion.

I see in the American medical journals that the use of olive oil in cholelithiasis is being discussed. In the *Berliner medicinische Gesellscheft* Dr. Rosenberg has reported three cases successfully treated in this manner after other remedies, as salicylate of sodium, Durand's Mixture, Vichy water, etc., had failed. Dr. Rosenberg has already called attention to the subject, and these three cases are only part of a large number observed in his practice. They are sufficient, however, to prove that olive oil will often succeed in removing gall-stones when other agents are ineffective. He emphasized the fact that gall-stones are evacuated some weeks after an attack, and to be quite sure of one's case it is necessary to examine the stools for three or four weeks after the symptoms have abated. Professor Senator confirmed Dr. Rosenberg's observations, and stated that he had also successfully treated a number of cases by this means. Instead of olive oil, which, in spite of the addition of menthol and cognac, is apt to prove nauseous to many patients, he prefers to give lipanine, as he finds that it is more readily taken and better borne.

April 23d, 1891.

WASHINGTON.

The Meeting of the American Medical Association.—The Rush Monument Fund.—Contract Railway Surgeons and the Code of Ethics.—N. S. Davis.—The Place of Next Meeting.—Functional Albuminuria in Relation to Life Insurance.—The New Officers.

The forty-second annual meeting of the American Medical Association, held in Washington, D. C., May 5 to 8, was one of the best attended in the history of the organization. The weather was delightful. Many of the members had brought their families, and Washington seemed restored to the activity and life of the congressional season. The general sessions were held at Albaugh's Opera House. Dr. W. T. Briggs, of Tennessee, presided, and though at times the debates were sharp, and motions and amendments were showered upon him, his good common sense atoned for any deficiency in parliamentary knowledge, and the proceedings were entirely harmonious. The permanent Secretary, Dr. W. B. Atkinson, who, by the way, served on the Committee of Arrangements at the only meeting the Association has ever held in California, was most active in his duties, and his programmes of each day's sessions and special meetings were models in their way.

In the first day's session the dull opening routine was considerably relieved by the report of Dr. A. L. Gihon, the Chairman of the Rush Monument Fund. For the seventh time in as many years, he had only to report progress. That portion of his report which told how the canvassing for funds was commenced in Rush's home, the city of Philadelphia, and among 1,500 invitations to subscribe, but 150 even had the goodness to return the inclosed 2c. stamped envelope—was received with great laughter. Dr. Gihon has push and energy sufficient for two ordinary men, and if he persists in his object we will some day have a monument to Rush. It is indeed lamentable that in the National Capital not one of the many statues represents medicine or a medical man.

Another subject that seemed to interest the members was the question whether the recent Convention of Railway Surgeons, in adopting certain methods, were not directly antagonizing the code of ethics of the American Medical Association. At the annual meeting of 1890, the State Medical Society of West Virginia took exception to certain regulations of the medical department of the Baltimore and Ohio Railway Company, and memorialized the National Association, asking that if it were ethical for physicians to give their services to large corporations under contract, that the same privilege be allowed to apply to individual patrons. The delegation from West Virginia presented the memorial, and issue was immediately taken by the railway surgeons present. After considerable excitement and some confusion the whole matter was left to a committee composed of one from each society represented at the present meeting, and in affiliation with the Association.

Among the many prominent men present, none were more active than the venerable N. S. Davis, of Chicago, the founder of the Association. He was present through every session, and at one time when the question of the acceptance or rejection of Dr. W. W. Potter, of New York, as a member of the Board of Trustees was hopelessly muddled, the Nestor of the Association solved the difficulty by suggesting a reference to the judicial council. All saw the wisdom of the move and it was carried unanimously. The question of Potter's rights was this: Dr. Potter, a prominent New York physician, had been in affiliation with the New York State Medical Society, which was dropped from the rolls of the Association owing to its proclivities towards homeopathic consultations. He now claims a right to membership by reason of his connection with the Erie County Medical Society, which is in harmony with the national body.

Rather an amusing incident occurred in connection with the Nominating Committee. Some 36 delegates, representing as many States, constituted the committee, and when the subject of the next place of meeting came up, there was considerable excitement. Dr. J. M. Keller, of Hot Springs, Arkansas, a man of considerable force, was extremely anxious that the Association meet next year in that city. Detroit had equally strong representatives, and had evidently done considerable trading to obtain the prize. California's cordial invitation was presented and ably seconded by Dr. Jenkins, of Iowa, President of the State Society. Omaha also wished to have the next meeting. After a half dozen ballots, in which Detroit and Hot Springs led, Hot Springs was selected. Dr. Keller was happy and immediately sent for refreshments at $5 a bottle, and dispatched telegrams of congratulation to his townsmen in Arkansas. The Nominating Committee had completed its work, was refreshed at Dr. Keller's expense, and the report presented to the Association was accepted with a single exception. That exception was Hot Springs, and Detroit won the day.

Among many interesting papers read at the various sections, one on the subject of functional albuminuria in its bearing on life insurance deserves especial mention. Dr. Davis, of Cincinnati, the author, had collected a mass of observations from France, England, Germany and America, and they went to show that functional albuminuria is far more frequent than practitioners are aware, and that the expectancy of life in such cases is not necessarily shortened. He takes the stand that a large number of persons are debarred from life insurance for reasons that are yearly growing more fallacious.

The newly-elected President of the Association, Dr. H. O. Marcy, of Boston, is and has been a most conscientious worker in the field of medicine. For years he has never failed to be present at the annual meetings or to read an able paper. His friends feel that the Association will gather increased strength under his guidance. California was honored in the election of Dr. W. E. Taylor, of San Francisco, to a Vice-Presidency. Dr. Taylor is actively interested in the Association of Medical Schools, which has for one of its objects the elevation of medical education throughout America. Dr. W. R. Cluness, of Sacramento, was elected as the delegate from California to the Pan-American Medical Congress in Chicago in 1893. Dr. Luke Robinson, of San Francisco, is a member of the Committee on State Medicine, and Dr. Walter Lindley, of Los Angeles, of the Committee on Necrology. G. L SIMMONS, JR.

REVIEWS AND NOTICES.

PROF. KOCH'S METHOD OF CURE. Tuberculosis popularly treated by Dr. Max Birnbaum. Translated from the German by Dr. Fr. Brendecke. Milwaukee: H. E. Hafferkorn. pp. 78–27. Paper, 75 cents, cloth, $1.00.

By failing to popularize the subject of tuberculosis and to present a brochure of sufficient scientific interest to the profession, the author has admirably succeeded in accomplishing two things. The book hardly exceeds the dignity of a primer on tuberculosis for the medical student. The translator does not succeed in combating the putative impartiality of the author, who makes the repeated dogmatic assertion that tuberculosis is curable by Koch's remedy. Perhaps the inference that the author is too loyal as a German to a German discovery is more correct, than the one which supposes this production to be a medium for advertising purposes in the guise of a scientific treatise.

PRACTICAL GUIDE TO THE DEMONSTRATION OF BACTERIA IN ANIMAL TISSUES, by Dr. Kühn; ON THE PRESENT POSITION OF ANTISEPTIC SURGERY, by Sir Joseph Lister, F.R.S.; CANCER AND ITS COMPLICATIONS, by Charles Egerton Jennings; THE TREATMENT OF EPILEPSY, by Dr. Ch. Féré; HANDBOOK TO DR. KOCH'S TREATMENT IN TUBERCULAR DISEASE, by Drs. Grün and Severn. Medical and Surgical Monographs. Vol. VIII, No. 3. New York: Wm. Wood & Co. Price, $1.00.

The usual excellence of Wood's Monographs is preserved in this volume. The respective subjects are represented by men eminent in science, and by their careful perusal the physician will learn much that is new and interesting.

PRINCIPLES OF SURGERY. By N. Senn, M. D., Ph. D., Professor of Principles of Surgery and Surgical Pathology, Rush Medical College, etc. Philadelphia: F. A. Davis. Cloth, $4.50; sheep, $5.50.

The title of the work under consideration, aside from its authorship, suggests at this particular time a line of inquiry of peculiar interest; for it is clearly evident that the principles of surgery now rest upon a basis of intelligence. We of to-day, may congratulate ourselves in having outlived an age of empiricism, and in having entered upon a period which will be characterized by reason. We have just experienced a revelation concerning the etiology and pathology of surgical affections: a revelation whose tardy recognition is best evidenced by much of the literature of the past decade. Admitting the author's sincerity in his prefatory statement, his book will be received by the profession with marked appreciation. "It has been my intention," says Professor Senn, "to keep in constant view the difference between the cellular processes, as we observe them in regeneration and inflammation, and to connect the modern science of bacteriology more intimately with the etiology and pathology of surgical affections than has heretofore been done by most authors." Dr. Senn's reputation as an untiring student, as a close observer, and withal as an original investigator, is a sufficient index of his ability to carry out his plan, and to perform the task thus briefly outlined. His aim throughout has been to establish fundamental laws. Old lines are erased, and artificial distinctions are ignored. As an example, in his discussion of primary union we find these explicit statements: "All wounds which heal without suppuration, heal without inflammation. All inflamed wounds suppurate, the reparative process is delayed until the inflammation has subsided." One cannot read far in this work without realizing the author's fidelity to, and faith in, the principles which he so clearly elucidates. A single quotation will serve as an illustration: "Brilliant operators are not always the best surgeons. The best results in surgery follow the one who is most painstaking in following out the minutest details." The chapter on suppuration is an epitome of the latest and best accepted theories of many authorities, supported by all facts, data and experiments which have any legitimate bearing upon the subject; moreover, in this chapter we have an unbroken chain of evidence in support of the claim "that pus microbes are the immediate and essential cause of suppurative inflammation and pus formation." A special feature of the work lies in the admirable treatment of that class of surgical diseases now recognized unmistakably as of specific microbic origin. We refer here to the chapters upon actinomycosis, anthrax, glanders, erysipelas, tetanus, hydrophobia, and tuberculosis. In conclusion, the reader may be assured that in this most excellent volume, he will find much to delight and little to disappoint or criticize.

ESSENTIALS OF SURGERY, TOGETHER WITH A FULL DESCRIPTION OF THE HANDKERCHIEF AND ROLLER BANDAGE. Arranged in the form of questions and answers, prepared especially for students of medicine. By Edward Martin, M. A., M. D., Instructor in Operative Surgery University of Pennsylvania, Surgeon to the Howard Hospital, etc. Illustrated. Fourth edition; revised and enlarged. Saunders' Question Compends, No. 2. Philadelphia: W. B. Saunders. pp. xii–322. Cloth, $1.00.

It is the habit of reviewers to speak slightingly of quiz compends, of which this volume is a fair type. Two facts impress us as significant in connection with this work: First, that the author is a teacher of reputed ability; as such he is presumably familiar with the requirements of the average student. Second, that the manual has run through three editions.

INTERNATIONAL CLINICS. A Quarterly of Clinical Lectures on Medicine, Surgery, Gynecology, Pediatrics, Neurology, Dermatology, Laryngology, Ophthalmology and Otology. Edited by John M. Keating, M. D., and J. P. Crozer Griffith, M. D., Philadelphia; and J. Mitchell Bruce, M. D., and David W. Finlay, M. D., London. April, 1891. Philadelphia: J. B. Lippincott Co.

The J. B. Lippincott Company have begun the issue, quarterly, of a work entitled "International Clinics." This work will comprise the best and most practical clinical lectures on medicine, surgery, etc., delivered in the leading medical colleges of this country, Great Britain and Canada. The lectures will be reported by competent medical stenographers, and thoroughly revised by the lecturers. Each volume will consist of over 350 octavo pages, illustrated with photographic reproductions on important cases. Vol. I of the series, which is before us, augurs well for future issues; the press work is good, the type clear, and the general appearance attractive. The illustrations are numerous and good, a number being photo-engravings of the highest class. Thirty-six lectures are included in this volume, the authors' names including many that are eminent in this country and in Great Britain. The work is distinctly a new departure, and the publishers evidently have not spared expense to place it upon a substantial footing.

THE INTERNATIONAL MEDICAL ANNUAL AND PRACTITIONERS' INDEX: A work of reference for medical practitioners. Ninth year. New York: E. B. Treat. pp. 580. Price, $2.75.

The ninth annual issue of this work fully maintains the character we have already given it as a very convenient reference at a low price. This issue includes for the first time some illustrations in colors in addition to the usual engravings. In the "dictionary of new remedies" are several that are probably as yet unfamiliar to our readers and useful notes are given on those better known. Part II includes a valuable article on "the hand in nervous diseases." The volume, as a whole, is fully equal to its predecessors, and for convenience and price, as well as for the character of its contents, cannot be surpassed.

MANUAL OF CLINICAL DIAGNOSIS. By Albert Abrams, M. D., Adjunct to the Chair of Clinical Medicine and Demonstrator of Pathology Cooper Medical College, San Francisco; Pathologist and Assistant Physician City and County Hospital, San Francisco, etc. San Francisco: Bancroft Company. pp. 207. Price, $1.00.

This little book is evidence of a great deal of labor in elaborating, classifying and grouping diseases, signs and symptoms. It contains a vast amount of information arranged in the most convenient form for reference. It is really a note-book rather than a manual, in which facts have been carefully arranged under the proper headings, punctuated by various styles of type, and indexed throughout. This, which is the uniform and real character of the work, explains why everything but clearness has been sacrificed to brevity. Some faults in style and typography can be remedied in a succeeding edition, which we are gratified to learn will soon be demanded. The book must be studied to be fully appreciated, and we do not know of a better investment for the practitioner as well as the student, for whom it was primarily intended.

WM. R. WARNER'S THERAPEUTIC HANDY REFERENCE BOOK FOR PHYSICIANS. Philadelphia: Wm. R. Warner & Co. pp., 119; cloth; $1.

This neat little volume of 119 pages contains a great deal of information in a handy form. The subjects touched upon include many besides those relating purely to therapeutics—the signs of pregnancy, Marshall Hall's method of artificial respiration, and the incubation, rash, etc., of the eruptive fevers. Half the volume is occupied by medical formulary alphabetically indexed.

TREATMENT OF UTERINE AFFECTIONS BY MASSAGE. By Dr. Eugene Arendt. COSMETICS, A TREATISE FOR PHYSICIANS. By Dr. Heinrich Paschkis. AFFECTIONS OF THE STOMACH IN DISEASES OF THE MALE GENITAL ORGANS. By Dr. Alexander Peyer. Vol. 8, No. 2. Medical and Surgical Monographs. New York: Wm. Wood & Co. Price, $1.

Dr. Arendt gives a brief description of the method of Major Thure Brandt in massage of the female genital organs. This method of treatment, in the majority of cases, deserves the strongest condemnation. Dr. Heinrich Paschkis' treatise on cosmetics, that occupies almost the entire volume, is one of the most valuable articles that the series has contained. Every subject coming under this head has been carefully considered and innumerable recipes have been included. Affections of the stomach in diseases of the genital organs, a subject that is perhaps not generally considered, is briefly treated by Dr. Peyer, his observations being emphasized by clinical illustrations.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a regular meeting of the Board of Examiners, held April 18th, the following physicians were granted certificates to practise medicine and surgery in this State:

John A. Ensminger, Saticoy; Miami Med. Coll., Ohio, Mar. 9,'82.
Benj. M. Hanna, Pittsburg, Pa.; Jefferson Med. Coll., Pa., Mar. 10,'77.
Wm. Rufus Hedgpeth, San Lucas; Missouri Med. Coll., Mo., Mar. 31,'91.
Chas. Stillman Mann, San Francisco; Med. Dept. Univ. California, Nov. 20,'90.

Chas. Clay Miller, Napa City; Rush Med. Coll., Illinois, Mar. 31,'91.
A. Palmer Peck, Hanford; Rush Med. Coll., Illinois, Feb. 1,'77.
Robert Wesley Rogers, Santa Monica; Memphis Hosp. Med. Coll., Tenn., Feb. 25,'81
Ethan H. Smith, Santa Clara; Bellevue Hosp. Med. Coll., N.Y.,Mar. 11,'89.
Scott Percy Woodin, San Jose; Med. Dept. Univ. Michigan, July 1,'86.
James M. C. York, Moore's Station; Coll. Phys. and Surgs., Keokuk, Iowa, Feb. 24,'85.

CHAS. E. BLAKE, Secretary.

At the regular meeting of the Board of Examiners, held May 6, 1891, the following were granted certificates:

Julius Rosenstirn (2d certificate), San Francisco; State Examination Certificate, Berlin, Apr. 15, '73.
Millard Maybee, Riverside; Queen's Univ., Kingston, Ontario, Apr. 25, '87.
Lewis Wilbur Stidham, Alameda; Rush Med. Coll., Illinois, Mch. 31, '91.
Jas. Stimson, Watsonville; Med. Dept. Univ. City of New York, Mch. 12, '54; Victoria Univ. Ontario, June 25, '55; Coll. of Phys. and Surgs., Ontario, Sept. 9, '85.
Frank Pollard, Saratoga; The Marion-Sims Coll. Med., Missouri, Mch. 14, '91.
Fred Hastings Shanks, San Francisco; Jefferson Med. Coll., Pennsylvania, Apr. 15, '91.
Chas. F. Miller, Ventura; Med. Dept. Univ. of California, Oct. 29, '74.
Carlton Smith Merrill, San Francisco; Med. Dept. Univ. City of New York, Mch. 7, '82.
Solomon Merrill, San Francisco; Long Island Hosp. Coll., New York, June 22, '76.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific), from April 16, 1891, to May 16, 1891.

In compliance with instructions of the division commander, Captain E. C. Carter, assistant surgeon, will accompany Troop C, Fourth Cavalry, on its march from Fort Walla Walla, Wash., to Fort Bidwell, Cal. Upon completion of this duty, Assistant Surgeon Carter will return to his proper station. Par. 7, S. O. 62, Dept. of the Columbia, April 24, 1891.

Colonel J. R. Smith, surgeon, Medical Director of the Department, will proceed on public business to Forts Stanton and Wingate, N. M., Fort Apache and Whipple Barracks, A. T., and upon completion, return to his proper station. Par 1, S. O. 51, Dept. of Arizona, May 5, 1891.

Acting Assistant Surgeon Tenison Deane, U. S. Army, will report to the commanding officer Troop K, Fourth Cavalry, for duty with the guard at Sequoia National Park. Par. 5, S. O. 40, Dept of Cal., May 7, 1891.

Upon recommendation of the Medical Director of the Department, Assistant Surgeon P. G. Wales is relieved from duty at San Carlos and will proceed to Fort Apache, A. T., and report to the commanding officer for duty; to take effect after return to post of Acting Assistant Surgeon William Johnson. Par. 2, S. O. 49, Dept. of Arizona, May 1, 1891.

The extension of ordinary leave of absence granted Captain Henry P. Birmingham, assistant surgeon, in S. O. 81, A. G. O., April 10, 1891, is changed to leave of absence on account of sickness, to date from May 1, 1891. Par. 4, S. O. 108, A. G. O., May 12, 1891.

Par. 5, S. O. 24, January 29, 1891, from this office, granting Major Julius H. Patozki, surgeon, six months' leave of absence, is so amended as to grant said leave on surgeon's certificate of disability, Par. 15, S. O. 99, A. G. O., May 1, 1891.

Major Joseph B. Girard, surgeon, is relieved from duty at Alcatraz Island and will report in person to the commanding officer, Benicia Barracks, Cal., for duty as post surgeon at that post, and attending surgeon at Benicia Arsenal, relieving Major John H. Janeway, surgeon. Major Janeway, on being relieved by Major Girard, will repair to Philadelphia and assume the duties of attending surgeon and examiner of recruits in that city; and, in addition to his duties in Philadelphia, will perform the duties of post surgeon, Frankfort Arsenal, Pa. Par. 14, S. O. 102, A. G. O., May 5, 1891.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from April 9, 1891, to May 11, 1891.

Surgeon Preston H. Bailhache, to represent the Service at the annual meeting of the Medical Society of the State of California, April 8, 1891; detailed as Chairman of Board for Physical Examination of Officers Revenue Marine Service. April 14, 1891.

Passed Assistant Surgeon W. P. McIntosh detailed as Recorder of Board for Physical Examination of Officers of Revenue Marine Service. April 14, 1891.

Assistant Surgeon B. W. Brown, report to commanding officer revenue steamer "Rush." May 7, 1891.

Assistant Surgeon G. M. Guiteras, detached from duty at New York and ordered to report for duty at San Francisco, Cal. May 11, 1891.

ITEMS.

Errata.—At page 255, line 2, Vol. V, for "Creolin, drs. v," read "Creolin, gr. xv."